ACM ABATEMENT PLAN

FOR

DEFERIET PAPER MILL SITE
DEFERIET, NY

PREPARED FOR:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
EMERGENCY RESPONSE REMOVAL ACTION BRANCH
REGION II

2890 WOODBRIDGE AVENUE
EDISON, NJ 08837
CONTRACT NO. 68HE0220D0003
DELIVERY ORDER NO. 68HE0220F0061

April 2021

Version: Version 1

Prepared by

KEMRON Environmental Services, Inc.
1359 Ellsworth Industrial Blvd
Atlanta, GA 30318

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF ABBREVIATIONS AND ACRONYMS

Acronym	Definition
ACM	Asbestos-containing Material
CFM	cubic feet per minute
CFR	Code of Federal Regulations
DOT	U.S. Department of Transportation
EPA	Environmental Protection Agency
HEPA	High Efficiency Particulate Air
KEMRON	KEMRON Environmental Services
NESHAP	National Emission Standards for Hazardous Air Pollutant
NIOSH	National Institute for Occupational Safety and Health
NPE	Negative pressure enclosure
OSHA	Occupational Safety & Health Administration
PCM	Phase Contrast Microscopy
PEL	Permissible exposure limit
PPE	Personal Protective Equipment
TSI	Thermal system insulation

1.0 INTRODUCTION

This Asbestos Abatement Plan has been prepared by KEMRON for work to be performed by KEMRON Environmental Services Company, Inc. (KEMRON) as an EPA Region II ERRS contractor at the Deferiet Paper Mill Site, herein referred to as the Site, located at 400 Anderson Avenue, Deferiet, NY 13628-0001. The Delivery Order (DO) No. 68HE0220D0003 was issued to KEMRON's under Contract number 68HE0220D0003, awarded 23 September 2020. The activities mandated by the plan is the safe handling, transportation, and disposal of contaminated materials resulting from abatement activities conducted at the Site. This objective will be achieved through compliance with local, state, and federal regulations, and the requirements of this plan.

1.1 Site Description

Deferiet Paper Mill is located at 400 Anderson Avenue, Deferiet, NY 13628-0001. The Site contains a variety of dilapidated and partially demolished buildings that were part of the former paper mill. Part of the former facility is operated by Brookfield Renewable Energy Partners LP or Brookfield Renewable Power Inc. (collectively, "Brookfield") as a power generation facility that operates a hydroelectric dam in the Power Canal. Employees of Brookfield must access the hydropower facility via an alleyway that runs between several of the large, crumbling buildings at the Site. The alleyway used to access the hydroelectric power-plant has exposed friable asbestos piping. This friable asbestos poses a health threat to workers who traverse the easement. Friable asbestos is located throughout many of the buildings and due to the conditions of the buildings is exposed and there is a threat of release. KEMRON has arranged for a structural survey of the buildings by a qualified structural engineer. The purpose of this survey was to ensure ACM abatement actions could be accomplished safely. The report from this survey is included as Appendix D.

1.2 Project Objectives

The purpose of this task order is to mitigate the threat of direct contact and off-site migration of friable asbestos containing material (ACM) throughout the Site. KEMRON shall provide all necessary personnel, equipment and materials to perform the Statement of Work set forth below:

- ERRS, Response Manager (RM) to contact the OSC to discuss the scope of work (SOW), logistics, timelines and work assignment (i.e. daily/weekly work order) including tasking and hours for ERRS personnel;
- Maintain the Project support facilities including, office trailer, temporary equipment storage, portable toilets, electricity, and internet;
- Prepare the Site health and safety plan prior to mobilization to the Site;
- Provide appropriate notifications to local, state, and federal agencies;
- Conduct an engineering evaluation of each building/area where ACM or SACM was found to be present (boiler house, turbine building, paper machine room, beater room, wet room, alleyway, and company garage) to determine if any safe ACM abatement and/or encapsulation activities can occur;
- Develop a Project Design Plan by a Project Designer in accordance with Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("12 NYCRR Part 56"), also known as Code Rule 56;

- KEMRON will initiate ACM abatement once all required plans and sub-plans meeting substantive requirements of all ARARs have been approved, and a NYSDOL Division of Safety and Health Asbestos Project Notification form has been filed and the New York State Asbestos Control Board has been notified (at least 10 days prior to initiation of site activities). KEMRON Team Subcontractor Bronze Contracting will perform asbestos abatement of all accessible structures. All work will be done in compliance with OSHA Asbestos regulations 29 CFR 1926.1101, 29 CFR 1910.134 Respiratory Protection, EPA regulations 40 CFR 61 Subpart M and 763, and New York State Asbestos Regulations 10 NYCRR Part 73 and 12 NYCRR Part 56.
- Bulk removal of asbestos debris in areas where this activity is determined to be safe for personnel;
- Abate ACM from piping and other structures in areas where this activity is determined to be safe for personnel;
- Apply encapsulant over ACM for stabilization of ACM in areas where directed by the OSC;
- Install fencing or other barriers to limit access to areas where ACM is not addressed due to structural concerns with the buildings or other physical hazards;
- Repair and/or replace existing Site perimeter fencing;
- Place asbestos warning, no trespassing, and other signage around Site perimeter and building exteriors;
- Dispose of all ACM and any additional containers of hazardous substances identified as impacting the environment during the course of the removal action properly at off-site facilities;
- Off-site disposal of hazardous waste and/or substances will comply with the EPA Off-site Rule, 40 CFR 300.440
- Conduct all operations in accordance with applicable Federal and State safety standards;
- Additional technical direction will be provided through daily work orders.

1.3 Third Party Oversight and Quality Assurance

KEMRON will procure a qualified subcontractor for third-party industrial hygiene air monitoring and quality assurance. Oversight of the asbestos and hazardous material abatement will be conducted by appropriately certified subcontracted third-party inspectors. The services for third-party oversight include:

- Review of KEMRON's submittal package, including notification to NYSDOL Division of Safety and Health and EPA;
- Provision of an industrial hygiene technician certified as successfully completing the NIOSH 582 equivalent training program for on-site air sample collection and analysis;
- Perform observations of the work areas and engineering controls prior to abatement and monitoring of the work practices during abatement for regulatory compliance related to asbestos removal, and complete daily field notes regarding observations made and events occurring during each shift;

- Conduct on-site PCM air sampling inside and outside the work areas to monitor ambient levels of airborne asbestos fibers. Samples will be sent off site to properly accredited lab for analysis;
- Upon completion of the abatement within each work area, conduct a final visual assessment to ascertain that specified materials have been removed;
- Conduct final clearance air sampling in general accordance with New York and applicable federal regulations and provide analytical results within 24-hours. Final clearance air samples will be sent off-site for PLM analysis;
- Submit daily field reports to include field technician notes and air sample data;
- Upon completion of the project (abatement of all structures with identified asbestos), a Final Project Management/Monitoring Report will be prepared. The report will include an executive summary, daily field reports, and sample results.

1.4 Construction Wage Determinations (formerly Davis-Bacon Act)

Subject to Contracting Officer approval, the following wage rates apply for this project. Most of the labor will fall under the "Asbestos Laborer" category and will be provided by KEMRON subcontractor Bronze Contracting.

	ST	OT	CLIN	RCMS	Job Lvl
Asbestos Laboror	$62.15	$91.21	1006A/B	D2-03	DBA-ASBLAB
Haz Waste Laboror	$67.75	$95.93	1006 A/B	D2-03	DBA-HZLAB
Laboror	$65.50	$92.57	1006 A/B	D2-03	DBA-LAB
Equip Grp1	$93.25	$134.58	1004 A/B	D2-05	DBA-EQ1
Equip Grp2	$92.26	$133.11	1004 A/B	D2-05	DBA-EQ2
Equip Grp3	$88.57	$127.61	1004 A/B	D2-05	DBA-EQ3
Truck Driver	$74.23	$105.93	1007 A/B	D2-20	DBA-TRKD

1.5 Mobilization/DeMobilization Plan

The project crew will be comprised of personnel from KEMRON and Bronze Contracting. KEMRON will provide the Response Manager, Field Cost Accountant, and a foreman (if needed). All KEMRON personnel will mobilize from outside the local area and will receive lodging and per diem. Bronze will provide equipment operators and asbestos laborers; all Bronze personnel will mobilize from within the local area and will not receive lodging and per diem. Equipment will be rented locally or provided from Bronze Contracting shop which is local.

1.6 PROJECT SEQUENCING AND RESOURCES (see Appendix A for Schedule and Appendix B for quantity estimates and equipment resources)

Based on conversations with the OSCs, KEMRON recommends the following sequencing, but recognizes the potential for changes as new information comes to light. Equipment needs will vary as described below, but a skid steer will be required throughout the project to move bags of ACM from work areas to roll-offs.

1. Garage - remove all ACM. This area will be done first for logistical reasons. Accessible for boom lift/scissor lift, so all elevated work accomplished that way. 150 linear feet (LF) of encapsulated piping to remove; 2 laborers plus equipment operators as needed; 10 days.
2. Outdoor Piping on North Side of Site- remove all ACM that can be reached by man lift. 150 LF of piping; 4 laborers plus equipment operators as needed; 10 days. Need to be flexible on scheduling this task because Brookfield has work scheduled in June.
3. Alleyway/Easement – remove all ACM and seal egress points from building; including piping along the roof from the alleyway. Should be able to access elevated material with scissor lift or boom lift. KEMRON recommends having all terrain fork lift for lifting bags of asbestos off elevated levels (carrying bags on man lift will exceed weight rating for lift). 174 LF of piping; 2 laborers plus equipment operators as needed; 10 days.
4. Electrical Room above Tunnel – remove all ACM. 150 LF of piping; man lift required to enter; 4 laborers plus equipment operator as needed; 10 days
5. Turbine Room – 2nd Floor – remove all ACM. No room for lifts so all elevated work from ladders/scaffolding. 90 LF of piping; 120 square feet of friable ACM; 3 CY friable ACM debris; 6 laborers; 15 days.
6. Turbine Room – 1st Floor – remove or encapsulate TSI wrapped piping as directed by OSC. No room for lifts so all elevated work from ladders/scaffolding. 315 LF of piping; 5 CY friable ACM debris; 6 laborers; 20 days.
7. Boiler House – remove all ACM debris and all TSI wrapped piping and equipment in poor condition. Remove or encapsulate all TSI wrapped piping and equipment in fair/good condition at direction of OSC. No room for lifts so all elevated work from ladders/scaffolding. First floor – 1,267 LF of piping; 750 square feet friable TSI; 45 cubic yards friable ACM debris; 6 laborers; 60 days. Second floor – 690 LF of piping; 50 square feet friable TSI; 17 cubic yards friable ACM debris; 6 laborers; 35 days.
8. Machine/Equipment Room – 1st Floor - remove all ACM debris and all TSI wrapped piping and equipment in poor condition. Remove or encapsulate all TSI wrapped piping and equipment in fair/good condition at direction of OSC. No room for lifts so all elevated work from ladders/scaffolding. 1,825 LF of piping; 320 linear feet transite 6 laborers; 95 days.
9. Beater Room – 1st Floor - remove all ACM debris and all TSI wrapped piping and equipment in poor condition. Remove or encapsulate all TSI wrapped piping and equipment in fair/good condition at direction of OSC. No room for lifts so all elevated work from ladders/scaffolding. 210 LF of piping; 90 linear feet transite; 6 laborers; 15 days.
10. Wet Room remove all ACM debris and all TSI wrapped piping and equipment in poor condition. Remove or encapsulate all TSI wrapped piping and equipment in fair/good condition at direction of OSC. No room for lifts so all elevated work from ladders/scaffolding. 30 LF of piping; 20 linear feet transite; 6 laborers, 12 days for first floor; 3 laborers, 3 days for second floor.

1.7 COVID CONSIDERATIONS

COVID-19 Considerations – KEMRON and all subcontractors will adhere to KEMRON's corporate COVID-19 Standard Operating Procedures (see Appendix C) and EPA Region 2's COVID Step-by-Step Considerations (see Appendix C). Site-specific COVID protocol will be included in the Health and Safety Plan.

2.0 WORK AREA PRE-CLEANING AND PREPARATION

A regulated area will be established prior to commencing asbestos removal activities. The regulated area(s) will be configured in a manner that minimizes access into the area(s) by un-protected persons.

Outside each regulated area an approximately 20-inch by 14-inch (508 mm x 356 mm) manufactured caution sign displaying the following legend with letter sizes and styles of a visibility required by Occupational Safety and Health Administration (OSHA) 29 Code of Federal Regulations (CFR) 1926 will be posted:

DANGER ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

The work area(s) will be demarcated to prevent unauthorized access into the work area(s).

Area Preparation/Containment:

- Install Danger signs and project notification signs outside all entrances to the work areas.
- Install critical barriers with 6-mil plastic sheeting and duct tape as needed.
- Install negative pressure system(s) at regulated material containments.
- Erect a five-stage personal decontamination station and equipment load out area(s).

2.1 Worker Decontamination

The decontamination process is designed to remove any contamination acquired in the exclusion zone and to keep the spread of contaminated materials from entering the support area. Care must be exercised to ensure that contaminants are removed from personnel and equipment before leaving the site.

Personnel will perform the following decontamination procedures which consist of a series of procedures performed in a specific sequence:

- The first station of the decontamination line will consist of personnel dropping any tools or equipment for later decontamination on provided table or poly sheeting.
- Personnel will then have an amended water rinse applied on the outer suit, gloves and boot covers.
- Disposable boot covers and outer gloves will then be removed and placed in proper containment.

- The protective coveralls will then be removed using slow, sure movements, gently rolling the coveralls down as they are removed. Rolling the coveralls while removing them keeps the contaminant covered side in as it is tightly rolled all the way down to the ankles and removed. The rolled-up garment can then be placed directly into the labeled PPE containment drum, followed by the removal of the inner gloves.
- Disposable protective clothing must be discarded and disposed of properly. All used protective clothing shall be deposited in labeled containers or impermeable bags for proper disposal.

The RM/SSO will be notified immediately of any emergency. An emergency eyewash station capable of providing the OSHA/ANSI required 0.4 gallon/minute flow for 15 minutes will be located at the CRZ and in areas where splash hazards may be present. All site employees will wash hands and face before leaving the decontamination area.

The contamination reduction zone (CRZ) is the area between the exclusion zone and support zone designated for equipment and personnel decontamination. The CRZ may also be a staging area for site tools, emergency equipment, containment equipment, additional PPE, sampling equipment, and respirator cartridge changes. All personnel and/ or equipment exiting the exclusion zone must enter the CRZ for decontamination before entering the support zone. PPE dress outs must be accomplished in the support zone before entry into the CRZ. Contaminated PPE will remain in the CRZ or the exclusion zone until properly disposed. The location of the CRZ will be determined mainly by the distance needed to prevent a potential release, explosion, or other hazard in the exclusion zone from affecting personnel in the CRZ and support zone. Additional toilet and hand washing facilities may be located in this area. No eating, drinking, chewing of tobacco or gum, smoking or applying lip balm, sun screen, etc. is allowed in this area.

2.2 Waste Load-Out Area/Material Transfer Unit

Asbestos containing waste will be removed from the work through a three-stage waste decontamination unit (washroom, holding room, airlock) using six-mil thick leak-tight polyethylene bags labeled with two labels with text as follows:

- First Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATHE DUST
AVOID CREATING DUST

Second Label: Provide in accordance with U.S. Department of Transportation (DOT) regulation on hazardous waste marking, 49 CFR parts 171 and 172:

ASBESTOS
NA2212
RQ

- Third Label: Will use a permanent label (Waste Generator Label) on each container, listing the name of the building owner and the location from where the waste was generated, in

accordance with the Environmental Protection Agency's (EPA's) Asbestos National Emission Standards for Hazardous Air Pollutant (NESHAP) Revision, 40 CFR Part 61.

KEMRON will use appropriate containers to haul packaged waste and debris to the selected landfill. Containers used to transport the asbestos waste will be lined with six-mil polyethylene sheeting. The containers will be protected by a tarp or folding the poly inside of the dumpster during inclement weather. Containers used to transport asbestos-containing waste will be marked with a sign bearing the following legend, in accordance with the EPA's Asbestos NESHAP Revision, during loading and unloading of the vehicle:

DANGER
ASBESTOS DUST HAZARD
CANCER AND LUNG DISEASE HAZARD

2.3 Workplace Entry and Exit Procedures

Prior to beginning asbestos abatement work activities, a decontamination enclosure will be installed adjacent to the entrance into the work area(s).

Decontamination procedures are designed for removal of dust from personal protective equipment (PPE) and minimize the potential for hazardous skin or inhalation exposure, cross-contamination. The following are general decontamination procedures established and implemented during this project:

- Decontamination is required for all workers exiting a regulated area. Personnel will not leave the regulated area without undergoing the decontamination procedures consisting of showering in the shower area with soap and water prior to changing into street clothes.
- For non-contained regulated areas where a remote decontamination unit will be used, workers will decontaminate High Efficiency Particulate Air (HEPA) vacuum outer suits before doffing in regulated area and exiting location of work. The workers will be double suited with disposable suits while work activities have remote decontamination units. Workers, while wearing respirators, will then immediately walk to the remote decontamination unit by a designated route. Once they have arrived to the remote decontamination unit they will undergo showering, prior to changing into street clothes. A demarcated path to the remote decontamination units will be constructed using construction barrier tape and "Danger Asbestos" tape. No unauthorized personnel will be allowed inside the barrier tape. The area inside the barrier tape between the location of work and the remote decontamination unit will be a regulated area. Decontamination will be as described herein.
- Contaminated protective equipment, materials and equipment/instruments shall not be removed from the work areas until they have been properly decontaminated and/or properly packaged and labeled.
- Employee shall not be permitted to exit the regulated area until contaminated clothing and equipment have been removed.
- Equipment will be wet wiped and HEPA vacuumed as necessary for decontamination.
- PPE is decontaminated or prepared for disposal on the premises. Personnel who handle contaminated equipment have been trained in the proper means to do so to avoid hazardous exposure.
- Workers are required and trained to immediately exit the regulated area, perform applicable decontamination procedures, and change if there is a breach in their protective clothing.

- Procedures for decontamination and waste disposal meet all applicable State, and Federal regulations.

2.4 Personnel Protection Requirements

Engineering and administrative controls will be employed on the Deferiet Paper Mill Site to eliminate and/or minimize exposure potential to the extent practicable. When identified hazards cannot be engineered out of the task, and safe work practices and other forms of administrative controls cannot provide sufficient protection or separation from the exposures, the last method of control is the use of personal protective equipment.

The following address the air purifying respirators and cartridges that will be used during the asbestos abatement:

- Full face, air purifying respirator with P100 HEPA cartridge
    - Cartridge shall be changed daily unless any of the following occur:
        - Cartridge becomes hard to breathe through due to reaching capacity;
        - Manufacturer recommends otherwise.

PPE for this project will consist of:

- Tyvek® coveralls with taped seams, elastic hoods, wrists, and ankles (hoods will be taped to respirator face pieces)
- Coveralls/ Uniform
- Class II high visibility vest
- Chemical-resistant steel toe boots, Chemical resistant over boots (taped)
- Hard hat
- One pair of 4-mil nitrile inner gloves
- One pair of 15-mil nitrile outer gloves (gloves will be taped to the outer suit)
- Hearing protection when necessary.
- Two way communication device.
- Cut resistant outer gloves when potential for lacerations, sharp items, piping, etc.
- Inner (sample gloves) and outer work gloves depending on the application.
- Chemical resistant safety toed boots
- Disposable boot covers
- Hard hat
- Hearing Protection when necessary

Workers will don the PPE in the support zone. They will put on disposable suits, followed by footwear, hard hats, inner and outer gloves, safety glasses and respirators prior to entering the work area.

Fall protection will be provided to personnel exposed to fall hazards on any elevated walking/working surface with an unprotected side, edge, or floor openings, from which there is a possibility of falling four feet or more to lower level or where there is a possibility of a fall from any height onto dangerous equipment, into a hazardous environment, or onto an impalement hazard. Fall hazards shall be addressed through the use of passive fall protection systems (erecting guardrails, fall restraint, travel restraint) along with administrative controls and training. For significant fall hazards it is advisable to have two protective systems, a primary and secondary

system as a back-up when feasible. If the primary system fails, the secondary system will be activated to protect Site personnel from the fall hazard.

A fall hazard survey will be conducted to identify all potential fall hazards on the Deferiet Paper Mill Site, and identify options for elimination and/or selecting other control measures. The survey will be conducted by the competent person, Response Manager Guy Smith. The structural Integrity of walking/working surfaces shall be closely inspected and surveyed to ensure the surfaces on which employees are to conduct tasks have the strength and structural integrity to safely support the workers and equipment. Employees shall not be permitted to work on those surfaces until it has been determined that the surfaces have the requisite strength and structural integrity to support the workers and equipment related to their tasks. Once it has been determined that the surface is safe for employees to work on, then it should be determined if a fall hazard exists at the work location.

2.5 Abatement Work Practices

Asbestos abatement will occur on structures identified as containing ACM.

KEMRON will perform all planning, administrative, execution, and cleaning requirements necessary to safely remove the asbestos-containing materials exercising careful safety precautions and protective measures as necessary to prevent contamination of surrounding areas.

Regulated work areas for the removal of Category I & II non-friable materials will consist of barricade tape and polyethylene sheeting as drop cloths. Friable Asbestos-containing Material (ACM) enclosures (containments) will be constructed prior to performing the removal and cleaning activities. The Friable ACM work area(s) will be isolated from the remainder of the facility using six-mil polyethylene sheeting as critical barriers. Penetrations into the work area(s) will be sealed and isolated with a combination of polyethylene and duct tape.

Remove Thermal Systems Insulation (Glove Bag)
Use glove bag method at misc. pipelines. Abatement of pipe and pipe fitting insulation will be accomplished using OSHA Class I removal techniques. The pipe insulation, pipe fittings will be removed by glove bag methods or in enclosures or mini- enclosures using wet methods and hand tools. In selective areas, glove bag systems will be used to remove ACM pipe insulation and fittings with at least two personnel performing the removal operations. Each glove bag will be smoke tested prior to starting abatement of thermal system insulation (TSI). A drop cloth will be placed under the glove bag work area. A wand from a portable sprayer will be attached to the top side of the glove bag to wet the fitting, while the opposite side will have a HEPA vacuum hose attached. Personnel will use hand tools to remove insulation from the pipe fittings and gently lower it to the bottom of the glove bag, then thoroughly wet it with water. The air will be evacuated from the bag with the HEPA Vacuum prior to removing from pipe. Tools and equipment will be decontaminated and removed, and the glove bag will be cut and removed from the pipe, then placed in a 6-mil poly outer bag and sealed with duct tape.

Remove Thermal Systems Insulation (Negative Pressure Containment)
Prior to beginning work activities within Friable ACM enclosure(s), a decontamination enclosure will be installed in the entrance into the work area(s). A negative pressure system will also be installed in the work area(s). The work area(s) will be placed under negative air pressure utilizing HEPA filtration systems. No air movement system or air filtering equipment will discharge unfiltered air outside the work area(s). A negative pressure will be maintained during work

activities within the enclosed area(s). A minimum of 0.02 inch of negative water pressure will be maintained. Filtered and discharged air will be exhausted outside of the enclosure.

The ventilation requirements will be determined based on providing fully operational negative pressure systems supplying a minimum of one air change every 15 minutes. The volume will be determined in cubic feet of the work area by multiplying floor area by floor-to-floor height. Total ventilation requirements will be determined in cubic feet per minute (CFM) for the work area by dividing this volume by the air change rate.

$$\text{Ventilation Required (CFM)} = \frac{\text{Volume of work area (cu. ft.)}}{\text{15 (minutes)}}$$

The number of units needed to achieve 15-minute change rate will be determined by dividing the ventilation requirement (CFM) above by capacity of exhaust unit(s) used. Capacity of a unit for purposes of this section is the capacity in cubic feet per minute with fully loaded filters (pressure differential which causes loaded filter warning light to come on) in the machines labeled operating characteristics.

$$\text{Number of Units Needed} = \frac{\text{Ventilation Requirement (CFM)}}{\text{Capacity of Unit with Loaded Filters (CFM)}}$$

One (1) additional unit will be added as a backup in case of equipment failure or machine shutdown for filter changing.

Exhaust unit(s) will be located so that make-up air enters the Enclosure Work Area(s) primarily through decontamination facilities or other supplemental make-up air locations and traverses the Enclosure Work Area(s) as much as possible. This may be accomplished by positioning the exhaust unit(s) at a maximum distance from the worker access opening or other make-up air sources. Exhaust ducts from units will be placed through an opening in the critical barrier openings on the building exterior. The critical barrier around the duct will then be sealed with tape. Where required for proper air flow through the workspace, HEPA-filtered make-up air Inlets will be installed in the perimeter enclosures that allow air from outside into the work area. Make-up air inlets will be located as far as possible from the exhaust unit(s). Air inlets will be designed to reseal automatically if the negative pressure system should shut down for any reason. Operation of the negative pressure system will be demonstrated by the following:

- Plastic barriers and sheeting move lightly in toward work area,
- Curtain doorways of decontamination units move lightly in toward work area,
- There is a noticeable movement of air through the decontamination unit. Smoke tubes will be used to demonstrate air movement from Clean Room to Shower Room, from Shower Room to Equipment Room, and from Equipment Room to Work Area.
- Smoke test will be performed inside of enclosures along with during glove-bagging procedures.

Exhaust units will be started before disturbing or removing any asbestos-containing material. After abatement work, has begun, units will operate continuously to maintain a constant negative 0.02 inches of water pressure differential between the work area and outside area until decontamination of the work area is complete. Units will not be turned off at the end of the work shift or when abatement operations temporarily stop.

Abatement work will be started at a location farthest from the exhaust units and proceed toward them. If an electric power failure occurs, all abatement work will immediately stop and will not

resume until full power is restored and all exhaust units are operating again. When power failure or loss of negative pressure equipment is expected to last longer than one-half hour:

a. Make-up air inlets will be sealed airtight.
b. Decontamination units will be sealed airtight after evacuation of all personnel from the work area.

HEPA filtered exhaust units will operate to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the work area with clean make-up air until completion of the removal and cleaning activities.

Protective clothing and respiratory protection will be donned before proceeding into active regulated work areas.

- Prevention Procedures to Prevent the Spread of Contamination Both in and Beyond the Regulated Work Area:
  - HEPA vacuums to collect dust and debris
  - Wet Methods
  - Prompt cleanup and disposal of waste debris
  - Enclosure or isolation of the work process
  - Ventilation of regulated area
  - Backup power source (generators)
- Measures to Check for the Spread of Contamination:
  - Visual inspections
  - Air monitoring

2.6 ACM Specific Removal Requirements

The following Table 2-1 presents the specific removal requirements for different types of ACM materials.

Table 2-1: ACM Matrix Table

General Description of ACM	Removal Method
Pipe Insulation	Glove-bag, gross removal in NPE, or wrap & cut method
Exterior Pipe Insulation	Glove-bag, gross removal in NPE, or wrap & cut method
TSI Boiler Insulation	NPE, wet method
Transite Panels	Wet method, manual removal
Duct Insulation	NPE,wet method

Notes: *NPE – negative pressure enclosure*

2.7 Materials

The following materials are anticipated for use during the asbestos abatement:

- Plastic sheeting (polyethylene) – Will use, at a minimum six-mil thickness, for all surfaces in the decontamination enclosure unit and for all Critical Barriers.
- Tape – Will use glass fiber or other type capable of sealing joints of adjacent sheets of plastic and for attachment of plastic sheet to finished or unfinished surfaces of dissimilar materials under both wet and dry conditions.

- Spray Cement – Will use spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.
- Wood and/or Polyvinyl chloride piping – Will use necessary equipment to construct a temporary framework for the work area(s) and decontamination unit(s).
- Labels, Markings and Signs used on the project shall be in accordance with OSHA, EPA, DOT and NYSDOL
- Surfactant – A wetting agent to assist in the control of visible emissions.
- Disposal Bags – Six-mil bags pre-printed with regulatory labeling and Generator labeling affixed.
- Glove-bags – Small bag type enclosure system for the removal of ACM insulation from elongated pipes or the like without danger or exposure of the operator to the asbestos material. The system utilizes a series of disposal pouches connected to a manifold which surrounds the pipe, and each of the disposal pouches may be removed from the assembly without disrupting the removal process.

2.8 Equipment

The following tools and equipment are also anticipated to be used during the asbestos abatement:

- Portable HEPA Vacuums
- Portable Showers
- HEPA Air Filtration Devices
- Dumpsters
- Scissor Lifts
- Forklifts
- Boom Lifts
- Scaffolding
- Airless Sprayers
- Pump Up Sprayers
- HEPA Vacuums
- Air Sampling Pumps
- PPE
- Pickup Trucks
- Box Trucks
- Hand and Power Tools
- Disposable Suits
- Decontamination Equipment
- Step Ladders
- Storage Containers
- Fall Protection Equipment

2.9 Barrier Inspections

During the asbestos abatement activities, perimeter barriers and critical barriers in the work areas will be inspected throughout the workday to verify the barriers are still intact and in good condition. If repairs are needed, they will be addressed immediately.

2.10 Project Decontamination and Final Clearance

Each Work Area will be adequately cleaned of any remaining visible residual asbestos containing material following the removal process. Cleaning of all surfaces of the Work Area including polyethylene sheeting, piping, remaining equipment, and tools will be carried out by use of damp cleaning, wet methods, and/or HEPA filtered vacuum equipment.

2.11 Final Inspection

Final visual Inspection will be conducted by a competent person. Once visual inspection is completed by competent person, the EPA OSC will be contacted for final visual inspection and air clearance sampling and analysis as needed.

2.12 Air Monitoring

Air monitoring will be performed by the third party subcontractor in compliance with OSHA and 12 NYCRR Part 56 air monitoring requirements to establish a Negative Exposure Assessment, as well as maintain the data during the project. The air monitoring requirements anticipated for the project include the collection of personnel air samples. A competent person will collect air samples to document personnel exposures to airborne fibers over both a 30-minute period (Excursion Limit) and an 8-hour Time Weighted Average for each operation as listed in the scope of work. The air samples will be counted for fibers by laboratory utilizing proficient analysts using the NIOSH Method 7400.

2.13 Final Clearance Air Monitoring

Once the final visual inspection is completed with no deficiencies, the third party subcontractor will conduct final clearance air monitoring in the negative pressure containments. If the results of the clearance sample are less than 0.01 f/cc the area shall be cleared. If, however, the concentration of asbestos fibers airborne inside of the containment area is above the clean criteria, this shall require that KEMRON re-clean the containment as many times as it takes to achieve clean air criteria of 0.01 f/cc.

2.14 Training Requirements

The work shall be performed and supervised by competent personnel who are trained, knowledgeable, and qualified in the techniques of removal, handling, and disposal of asbestos-containing building materials. Employees shall have specific asbestos training for the positions of Asbestos Supervisor, Asbestos Inspector, Asbestos Management, Asbestos Designer, and Asbestos Worker where appropriate and shall perform the work in accordance with the work plan narrative.

3.0 GENERAL REQUIREMENTS FOR ABATEMENT ACTIONS

3.1 Suspect Material

If any previously unidentified and/or untested material that is suspected to be asbestos containing, is encountered, all work will be ceased in the affected area and the OSCr will be notified. KEMRON, the OSC, and the third party subcontractor will work together to identify the material and determine appropriate disposition.

3.2 Mini-Enclosures

Small walk-in enclosure that accommodates no more than 2 people (mini-enclosure) if the disturbance or removal can be completely contained by the enclosure. Localized removals will be performed utilizing six-mil Polyethylene sheeting to enclose the removal material. This will create a barrier from the general work area. Glove bag will also be utilized as applicable.

3.3 Disposal Procedures

All asbestos-containing waste and contaminated debris to be placed in transport containers will be bagged or wrapped using six-mil polyethylene disposal bags or six-mil polyethylene sheeting; bags will not be overfilled and will be securely sealed via “goose necking” to prevent accidental opening or leakage. Bags will be placed in a dumpster that has been double lined with six-mil polyethylene sheeting or a pre-fitted liner for transportation to the landfill. The asbestos waste will be removed from the work area(s) and transported to the lined dumpster. Should a roll-off container be left on site for use during the next work day, the container will be sealed shut and labeled as containing ACM prior to the close of business of that day.

3.4 Special Pre-Cleaning Techniques

Pre-cleaning is generally reserved for building interior work areas that are scheduled for re-occupancy. Pre-Cleaning techniques will consist of HEPA vacuum and wet wiping of surfaces within the work area during the setup process. Should it be determined that ACM has previously been disturbed and the potential for exposure exists prior to critical barrier installation, the work area will be pre-cleaned while exercising caution not to disturb any in-place asbestos-containing materials.

3.5 Procedures for Asbestos Fiber Release Episodes

In the event of an asbestos fiber release episode, the area will be immediately evacuated of all unprotected personnel. The work area will be identified, and access restricted to minimize the number of persons within the work area and protects persons outside the work area from exposure above the permissible exposure limit (PEL). Caution will be used to make sure that personnel are not tracking asbestos-containing debris to areas outside the regulated area and spreading the contamination. All vents, openings, etc., will then be sealed. The ACM debris will be wetted down, picked up and properly labeled etc., the area will be completely HEPA vacuumed as needed. The surface area that was contaminated will then be encapsulated with a penetrating encapsulant.

3.6 Alternate Procedures

Alternate means of compliance will be used where standard asbestos removal work practices cannot be utilized because a structure is deemed unsafe for personnel entry. Other unique scenarios may also qualify for alternate means and methods.

Procedures

A Project Designer will evaluate the work area, the type and quantity of ACM, the projected work practices, and the engineering controls and develop an Alternate Methods Plan that ensures the planned control methods will be effective as standard work practices.

The Alternate Methods Plan will address the following:

- Reason why standard work practices cannot be utilized.
- Date the work area was evaluated by the Project Designer.
- Site, address, location where the inspection was performed.
- The purpose of the evaluation (e.g. asbestos removal from an electrical structure or component where standard wet methods cannot be utilized, removal of a debris pile, etc.).
- Determine of an asbestos survey was performed.
- List all procedures that will be followed for controlling asbestos emissions during the abatement work.
- Plan and procedures for final inspection to ensure the ACM has been removed and disposed of.

Alternate Procedures

a. Controlled Area – The work will be conducted in a controlled area clearly marked by barriers and asbestos warning signs. Access to the controlled area will be restricted to authorized personnel only.
b. Wetting – All material and debris will be handed in a wet condition. Absorbent materials will be saturated with a liquid wetting agent and non-absorbent materials will be coated with a liquid wetting agent. Any dry surfaces exposed during the operations will be wetted immediately.
c. ACM Waste Materials – All waste will be kept wet and will be placed in impermeable containers as soon as possible after removal but no later than the end of the work shift. The containers will be sealed and marked with Generator labels.
d. Air Monitoring – Air monitoring will be conducted at the perimeter of the controlled area, both upwind and downwind to ensure fiber concentrations do not exceed the PEL.
e. Competent Person – A Competent Person will be present for the duration of the work and will supervise the work activities.
f. Separation of Materials – If the work involves the separation of clean materials from debris piles where asbestos contamination exists, the Competent Person will ensure the materials diverted from the ACM waste stream are free of asbestos.

3.7 Fire Safety

Employees shall have received training in basic fire safety. Site specific instructions will be given to personnel on the procedure to follow if an alarm is sounded. All exit routes will be clearly marked and visible. Fire extinguishers will be in the decontamination area and staged throughout the work area. All fire extinguishers will be inspected by appointed authorized personnel. A muster point for fire evacuation will be designated by the site superintendent.

3.8 Regulatory Agency Requirements

The following summarizes the Regulatory Agencies and their rules related to asbestos removal operations:

1. U.S. Department of Labor, OSHA, including but not limited to:
    - Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules 29 CFR 1910.1001 and 29 CFR 1926.1101.
    - Respiratory Protection - 29 CFR 1910.134
    - Construction Industry - 29 CFR 1926

- Access to Employee Exposure and Medical Records - 29 CFR 1910.20
- Hazard Communication - 29 CFR 1910.1200 and 29 CFR 1926.59
- Specifications for Accident Prevention Signs and Tags - 29 CFR 1910.145
- Sanitation - 29 CFR 1910.141
- Head Protection - 29 CFR 1910.100
- Face and Eye Protection - 29 CFR 1910.102
- Scaffolding – 29 CFR 1926 Subpart L

2. EPA including but not limited to:
   - NESHAP - 40 CFR 61
   - Identification and Listing of Hazardous Wastes - 40 CFR 261
   - EPA Model Accreditation Plan asbestos abatement worker training (40 CFR Part 763, Subpart E, Appendix C).
3. DOT including but not limited to:
   - Shippers-Hazardous Materials Regulations - 49 CFR 171 and 172
4. New York State Asbestos Regulations 10 NYCRR Part 73 and 12 NYCRR Part 56

3.9 Recordkeeping

OSHA standards require that employers with employees engaged in asbestos-related work retain:

- Personal air sampling records, for at least 30 years; personal air samples are those collected in the worker's breathing zone during performance of work involving asbestos exposures.
- The data used to qualify for exemptions from OSHA's initial monitoring requirements for the duration of the exemption.
- Medical records for each employee subject to the medical surveillance program for the duration of their employment plus 30 years.
- All employee training records for one year beyond the last date of each worker's employment.
- Additional OSHA recordkeeping requirements:
- Access to employee exposure and medical records (29 CFR 1910.1020)
- Hazard Communication (29 CFR 1910.1200).

4.0 APPLICABLE STANDARD AND GUIDELINES FOR ABATEMENT ACTIONS

The following Standards and Guidelines are applicable for asbestos abatement:

- Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York (Cited as 12 NYCRR Part 56)

Asbestos Abatement:

- Licensing requirements: 12 NYCRR Part 56-3.1
- Certification requirements: 12 NYCRR Part 56-3.2
- Notification requirements: 12 NYCRR Part 56-3.6
- Work practices: 12 NYCRR Part 56
- Recordkeeping: 12 NYCRR Part 56

Asbestos Waste Disposal:

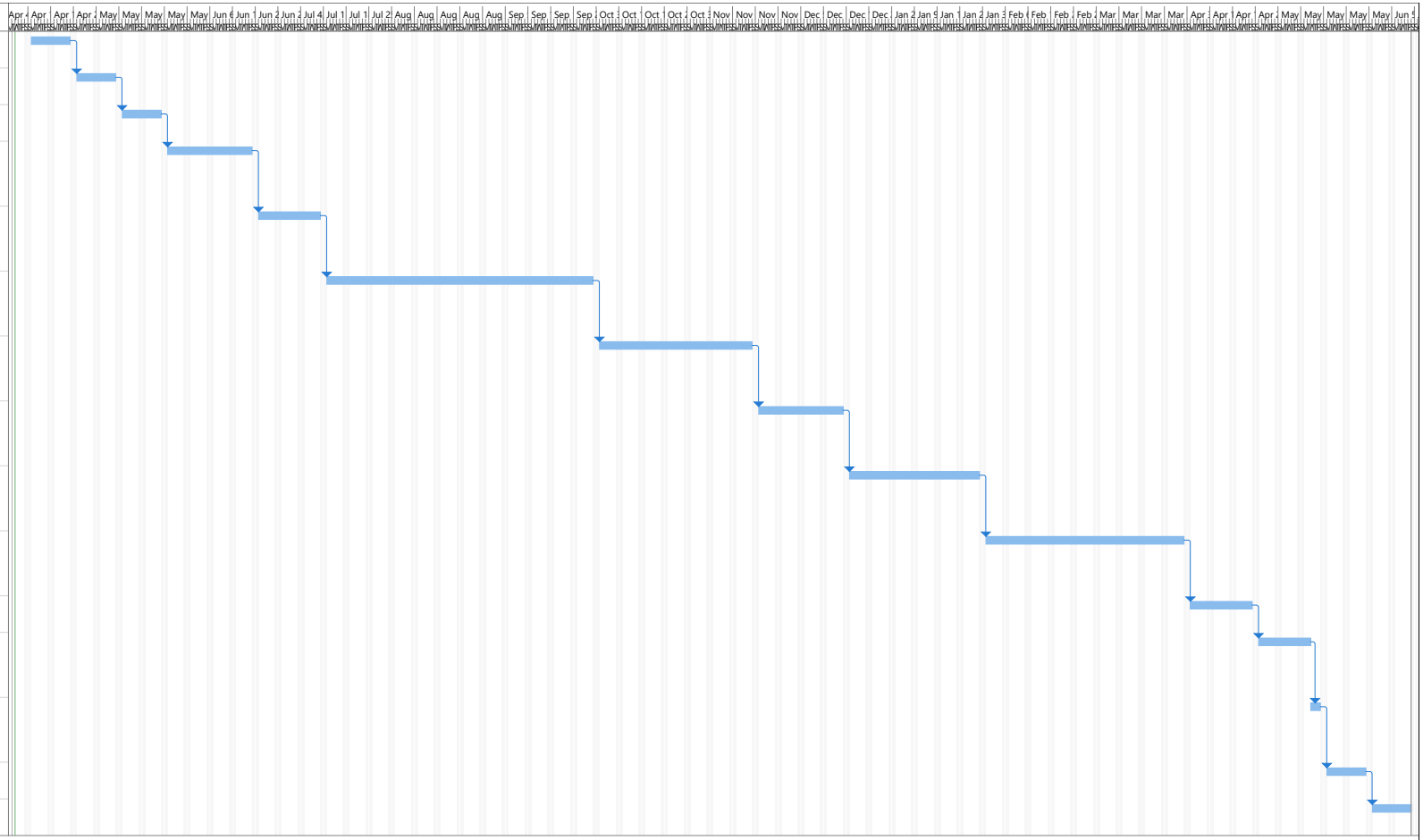
- Collection: 12 NYCRR Part 56-8
- Transportation: 12 NYCRR Part 56-8
- Disposal: 12 NYCRR Part 56-10.4

Regulatory Agencies:
New York Department of Labor, Licensing and Regulation Occupational Safety and Health

Appendix A

Project Schedule

ID	Task Mode	Task Name	Duration
1		Site Setup	10 days
2		Garage	10 days
3		Easement Area	10 days
4		Turbine Room - 1st Floor	20 days
5		Turbine Room - 2nd Floor	15 days
6		Boiler Room - 1st Floor	60 days
7		Boiler Room - 2nd Floor	35 days
8		Machine Room - Area 1	20 days
9		Machine Room - Area 2	30 days
10		Machine Room - Area 3	45 days
11		Beater Room	15 days
12		Wet Room - 1st Floor	12 days
13		Wet Room - 2nd Floor	3 days
14		Electrical Room	10 days
15		Outside North	10 days



Project: Deferiet Paper Mill Sch
Date: Wed 4/7/21

Task	Summary	Inactive Milestone	Duration-only	Start-only	External Milestone	Manual Progress
Split	Project Summary	Inactive Summary	Manual Summary Rollup	Finish-only	Deadline	
Milestone	Inactive Task	Manual Task	Manual Summary	External Tasks	Progress	

Appendix B

Quantity Estimates and Equipment Resources

BRONZE Contracting LLC – Equipment List

Job Number_____ **Job Name**_____ **Date**_____

RE-MOVED	RE-TURNED	DESCRIPTION	RE-MOVED	RE-TURNED	DESCRIPTION
		Micro-trap – Ea			Sledge hammer(s)
		Micro-trap, mini –Ea			3lb Hammers – Ea
		Shower – Ea			Tin Snipes - Ea
		Shower pump –Ea			Bolt cutter(s)
		Washing machine hose- Ea			Amended water mixer
		Hot water heater –Ea			Y's
		Water hose (50')			Dust pan(s)
		Ladder – smaller than 6ft			
		Ladder – 6ft Ea			Garden sprayer
		Ladder – 8ft Ea			Lockers
		Ladder – 10ft Ea			Rope
		Ladder – 12ft Ea			Sheet rock cart
		Ext. Ladder (write size)			Wheel Barrows –Ea
		Extension. cords – Ea.			Air less sprayer
		Panel boxes – Ea			Air compressor
		Panel box wire			Buffer
		GFI's – Ea			Generator (gas)
		String lights – Ea			Pressure Washer (gas)
		Work lights - Ea			
		HEPA Vac. Euro –Ea			Chain Saw (gas)
		Wet Vac. –Ea			Liquid hand pump (fuel)
		Vacuum wand –Ea			Concrete Float w/poles
		Hand Trucks –Ea			Concrete rake – Ea.
		Salamander Heater –Ea			Shovels
		Spud bar –Ea			Brooms
		Torch set – Ea			Mop handle(s)
		Fire Extinguisher –Ea			Mop bucket w/wringer
		Monometer			Harness w/lanyard
		Scaffolding (set)			Chain fall
		Scaffolding, baker			Crow bars
		Stakes			
		Orange Fence			
		Chain Link Fence			
		Safety Vests			
		Orange Parking Cones (Normal)			
		Orange Parking Barrels			
		Orange Parking Cones (TALL)			

Supervisor Sign_____ **Date**_____

BRONZE Contracting LLC – Material List

Job Number_____ **Job Name**_____ **Date**_____

RE-MOVED	RE-TURNED	DESCRIPTION	RE-MOVED	RE-TURNED	DESCRIPTION
		Citrus Glue Cleaner			Low odor mastic rm.-5gal
		Bags, Asbestos.(75)Roll			Mastic remover – 5gal
		Cassettes, Lead, Box			Rags – Box 50lbs. -ea
		Cassettes, Asbestos. Box			Razor Knifes – Ea
		Plastic 55 gal drum - Ea			Razor Blades – Pack.
		DOT Steel Drums – Ea			Resp. filters ½ mask – pkg
		Drums, Fiber – Ea			Respirator. Wipes - Box
		Encaps.32-60 blue - Ea			Respirator. Filt. Organic – Ea
		Encaps.32-61 clear - Ea			Respirator. ½ mask – Ea
		Final Wash TSP 805			Scrub brush(pot), - Ea
		First Aid Kit – Ea			Scrub brush(toilet), - Ea
		Glovebags cont. – Roll			Disposable Towels Box
		Gloves, Cotton – Dz			Scrubbers(black) -case
		Gloves, Rubber – Dz			Shampoo - Ea
		Glue –(spray) – case			Danger Signs -Ea
		Hasps – Ea			Smoke test Kit -Ea
		Hinges – door – Ea			Spray Foam – Ea
		HEPA Vac. HEPA Filt. Ea			Spud Blades 31/2" – Ea
		Light Bulbs – Ea			Staples – Box
		Light Bulbs,500W – Ea			Stickers – danger roll
		Lumber 2x4x8 – Ea			Speedy Dry – bag
		Lumber 4x8 plywood –Ea			Duct Tape Silver – case
		Lagg cloth / sq. ft.			Duct Tape Red - case
		Manometer			Caution Tape (Yellow)
		Mini Trap HEPA Filt ea			Danger Tape (RED)
		Trap tubing (reinforced) roll			Tyvek Suits – 25 case- Ea
		Trap tubing - Roll			Tyvek boxers 100case - Ea
		Micro-trap, pre-filters case			
		Micro-trap, secondary filters case			Vacuum bags, Euro – Ea
		Mini-trap, pre-filter case			Vacuum HEPA-filter – Ea
		Mop Heads – case			Water filter 5 micron. –Ea
		Nails – lb.			Water Filter 25 micron. – Ea
		Screws –lb.			Wetting agent, 5 gal – Ea
		Paint, spray – can			WD 40, can – Ea
		PAPR filters – Ea			Wire Brush – box (12)
		Poly 6mil. 20 x 100 Roll			Wire Brush(tooth) – Ea
		Poly 6m. 20 x 100 reinforced Roll			19" Buffer Pads –Ea

Supervisor Sign_____ **Date**_____

Location	Friable (LF)*	Friable (Sq Ft)	Friable (Cu Yds)	Transite (LF)	est. days	
Garage	150	0	0	0	10	2 techs
Easement Area	174	0	0	0	10	2 techs
Turbine Room - 1st Floor	315	0	5	0	20	6 techs
Turbine Room - 2nd Floor	90	120	3	0	15	6 techs
Boiler Room - 1st Floor	1267	750	45	0	60	6 techs
Boiler Room - 2nd Floor	690	50	17	0	35	6 techs
Machine Room - Area 1	0	0	0	320	20	6 techs
Machine Room - Area 2	500	0	0	0	30	6 techs
Machine Room - Area 3	1325	0	0	0	45	6 techs
Beater Room	210	0	0	90	15	6 techs
Wet Room - 1st Floor	0	0	0	200	12	6 techs
Wet Room - 2nd Floor	30	0	0	0	3	3 techs
Electrical Room	150	0	0	0	10	4 techs
Outside North	150	0	0	0	10	4 techs
Totals	**5051**	**920**	**70**	**610**	295	

* Piping diameters ranged from an estimated 3" to 16"
These represent EPA estimates for planning only. Contractor is expected to come up with own estimates during pre-bid site walk.

Will need various boom lift / scissor lift / skidsteer operators daily for each area

Appendix C

COVID Considerations

EPA Region 2 SEMD RAB and RPB COVID-19 Step by Step Considerations

Updated March 31, 2021

The purpose of this document is to provide guidance, based on available CDC and EPA guidance as well as regional consensus, for establishing and evaluating field work protocols to be employed during the COVID-19 pandemic in order to reduce the risk of COVID-19 exposure to field personnel. OSCs and contractors should consider the following best management practices for incorporation into the site-specific Health and Safety Plan (HASP).

Planning for Mobilization

1. One HASP must be prepared for the site, reviewed and accepted by the OSC. This plan needs to include COVID-19 specific procedures to be implemented by all site personnel and visitors including EPA personnel, contractors, subcontractors, couriers and delivery personnel. The COVID-19 Step-by-Step Considerations included herein should be considered during the development of and/or for incorporation into the site-specific HASP.
2. Prior to mobilization, check state, local, or tribal orders for restrictions and limitations for travel. Determine if additional guidelines must be followed relating to social distancing and hygiene measures to reduce the spread of infections and protect responders.
3. Do not conduct unnecessary travel or in-person public meetings. Public outreach can be conducted via phone calls or through video conferencing services. Contact your Community Involvement Coordinator for more information.
4. Review SEMD COVID-19 travel procedures as applicable. The OSC should notify supervisor prior to any anticipated travel and prepare any notifications required for Acting RA/DRA approval.
5. The OSC should prepare any necessary paperwork such as a Fact Sheet/Community Update and SEMD Criteria for Consideration for Site Mobilization, utilizing the R2 COVID-19 dashboard.
6. The OSC should conduct a pre-meeting/call with all contractors/third parties who will be conducting work on-site to discuss COVID-19 specific procedures. All contractors must establish COVID-19 specific procedures for review and acceptance by the OSC and incorporation into the HASP/Work Plan.
7. It is recommended, but not required, that all potential field staff have a current flu vaccine at least two weeks prior to field work to allow the body to develop antibodies and therefore provide protection. It is also recommended that field staff should also have a COVID-19 vaccine, as eligible and available to allow for peak effectiveness prior to mobilization. (Peak effectiveness is: 7 days following the second Pfizer vaccine, 14 days following the second Moderna vaccine, and 28 days following the Johnson and Johnson (J&J) vaccine.) Individuals should consult with their personal physicians prior to any vaccinations. Obtaining a COVID vaccination will not affect any other procedures in this document unless otherwise noted.

8. Plan to provide an adequate number of hand washing stations (not just hand sanitizer) and consider an increased frequency of porta-john servicing beyond normal requirements. One hand washing station should be considered for each porta-john and each site trailer.
9. If site work requires donning Levels A, B, or C PPE, establish a plan for the management of used face coverings and PPE in the contamination reduction zone. The plan should describe in detail how an individual's respirator and face covering will be segregated, temporarily stored and not inadvertently shared. Face coverings will need to be marked to identify the inner and outer sides (against vs. away from the face) to prevent accidental reversal when re-donned. See Item #43 below, under "During Daily Site/Response Work."
10. Plan to use vehicles in lieu of site trailers. If trailers are necessary, restrict occupancy to one to two people per trailer as feasible and/or use a trailer with an office configuration that allows for social distancing. Check state and local COVID-19 guidance for any construction site requirements regarding trailers, such as New York State's guidance for 250 square feet per individual working indoors. Trailers should be ventilated to the outside air as much as feasible. Use of tent canopies as alternative shelter from the elements should be considered; such use should provide for the observance of social distancing requirements. Additionally, use of tent side panels should be avoided and/or configured to allow for maximum ventilation.
11. Create a detailed site configuration diagram/plan for the site (if one hasn't already been created) to facilitate compliance with COVID-19 disinfectant needs, including: trailers; staging areas; hot zone, contamination reduction zone and clean zone perimeters; parking areas; a traffic plan; security personnel location(s); truck loadout areas; porta-john/hand washing stations locations; etc.

Additional Considerations - Planning for Mobilization for Emergency Response

12. A HASP with COVID-19 specific procedures should be created by the safety officer/daytime response team (for daytime response) or the phone duty officer (for after-hours response). EPA's HASP should incorporate or reference more detailed or stringent HASP requirements developed by State or Local Government Agencies responding to the incident, and incorporate EPA contractors HASP requirements which are not addressed in the EPA HASP.
13. Prior to deployment of OSC(s) for an ER, the daytime response duty officers or the afterhours phone duty officer must contact one of the following: the Response Section Chief, Deputy Regional Incident Coordinator or RPB Branch Chief to discuss the rationale for deployment of the OSC(s).
14. For Item# 1 above regarding acceptance by the OSC and incorporation of contractors' COVID-19 specific procedures into the HASP/Work Plan, the OSC can verbally accept EPA contractor's COVID-19 procedures for an ER and the REOC may formalize the incorporation of any additional procedures into the site-specific HASP as time allows.
15. Prior to deployment to a coordination center such as the RRCC, NRCC, or EOC, determine what measures are being taken to ensure social distancing and disinfection. Remote coordination is preferred and must be considered prior to physical deployment.

16. Emergency response disinfection kits have been assembled and are available. They are managed by equipment room personnel and should be used in conjunction with personal disinfection kits.

Additional Considerations - Planning for Mobilization for Overnight Travel

17. If a multi-overnight stay is required, source hotel accommodations that have in-room kitchens (one person per room) if possible. Inquire about housekeeping policies (how often), restocking of supplies, additional cleaning procedures, and availability of cleaning supplies for guests.

Mobilization

18. Prior to traveling to the job site, all personnel shall conduct self-monitoring for potential illness/health status. ***Personnel should not report to the job site if experiencing symptoms of any illness***, including symptoms of COVID-19, or has had contact with someone who has COVID-19 or symptoms of COVID-19 within the previous 14 days. The OSC should inquire with the resident/owner/occupant prior to mobilizing and prior to EPA arriving to the job site to determine the health status of the resident/owner/occupant(s), and whether they have had any contact with someone who has symptoms of or confirmed case of COVID-19 within the previous 14 days (unless the person discloses that they have been fully vaccinated). If any resident/owner/occupant is feeling ill or has any symptoms of or a confirmed case of COVID-19 in the previous 14 days, site activities should be delayed.

19. Prior to loading equipment and/or operating the vehicle, disinfect the vehicle's interior and commonly touched surfaces (such as door handles, steering wheel, seat belts, temperature dials, fan dial, music dials/touchscreen, gear shifter, etc.) as well as the vehicle keys and gas card in accordance with EPA's vehicle cleaning guidance found at: https://intranet.epa.gov/covid19/docs/COVID-19_Vehicle_Guidance_Final_4_27_2020.pdf and as Attachment A. Disinfect vehicles using an EPA COVID-19 registered cleaner. Bleach based disinfectants are not recommended for vehicle disinfection due to extended off-gassing and potential damage to the vehicle interior. Non-bleach-based disinfectants, such as alcohol-based solutions with at least 70% alcohol, are recommended. Please review disinfectant labeling for proper PPE and contact times and ventilate the vehicle after disinfectant use. If no alcohol based or other disinfectant is available, a soap and water solution can be used. Implement this practice for all vehicles (EPA, ERRS, START, etc.). In vehicles with more than one driver, all commonly touched surfaces should be wiped down prior to changing drivers; wear gloves and avoid touching your face/mouth if disinfection is not feasible before switching drivers.

20. Response, Branch, and general vehicle pool vehicles will not be available for use for a period of three days after prior use.

21. Maintain one person per vehicle. If extraordinary circumstances prevent one individual per vehicle, use a consistent buddy and don't interchange staff within vehicles. In vehicles with multiple occupants, all staff should wear a face covering.

22. Encourage all personnel to drive to/from the site in separate cars instead of taking a flight or mass transit (trains, carpooling, etc.).
23. Load a COVID-19 specific disinfection kit*/equipment (list based on an individual person) including the following PPE:

- ☐ Infrared Thermometer
- ☐ Minimum of two personnel cloth masks
- ☐ Extra paper surgical masks for all resident/owner/occupants
- ☐ N95 masks (may be used if voluntary use training has been completed)
- ☐ Face shield
- ☐ Nitrile gloves
- ☐ Safety glasses or goggles
- ☐ Disinfectant wipes or other cleaner*#
- ☐ Carboy with water
- ☐ Pump sprayer
- ☐ Soap
- ☐ Hand sanitizer (>60% ethanol or >70% isopropanol)
- ☐ Paper towels
- ☐ Trash bags
- ☐ Tape

* Disinfection kits contain 75% isopropyl alcohol (required minimum 70% isopropyl alcohol by CDC) and concentrated bleach. Disinfection kits are assigned to each OSC and can be stored in the EPA locker room. Kits designated for emergency response shall not be used for longer-term site work. The emergency response kits are stored in the EPA equipment room.

\# It is recommended that disinfectants noted throughout these procedures are COVID-19 registered disinfectants, found on EPA's List N at https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2. Additionally, the List N tool at https://cfpub.epa.gov/giwiz/disinfectants/index.cfm. may be used to aid in selecting the appropriated disinfectant(s). If a COVID-19 registered disinfectant is unavailable, one can use:

- Dilute bleach solution, produced by mixing 1/3 cup bleach per gallon of water or 4 teaspoons bleach per quart of water, approximately a 1:50 ratio. Information can be found in the disinfection kit on how to make the appropriate solution with the spray bottle. Note that bleach is a potential eye and skin irritant. Immediately rinse exposed skin if splashed with undiluted bleach. The bleach Safety Data Sheet (SDS) should be included in the site HASP. This solution is appropriate to use on hard, non-porous surfaces such as tabletops, chairs, etc. and for cleaning up bodily fluids.

- 70% alcohol (isopropanol). CDC recommends a minimum of 70% isopropyl alcohol or 60% ethyl alcohol, EPA kits contain 75% isopropyl alcohol. Note that isopropanol is potentially flammable if excessive amounts are sprayed or spilled in a poorly ventilated area. The isopropanol SDS should be included in the site HASP. This solution is appropriate to use on hard, non-porous surfaces such as tabletops, chairs, etc., and for use in vehicles.

Follow manufacturer guidelines for appropriate PPE and ventilation. Guidelines should also be followed for appropriate contact times. Information regarding disinfectants in the disinfection kits, are located in the disinfection kits.

24. During mobilization, avoid unnecessary stops or diversions. When self-fueling the vehicle, wipe down screens/buttons and gas pump handle or utilize gloves and dispose following fueling. When using full service fueling, only crack the window to hand the attendant the credit card (instead of opening the window fully) and wipe down the credit card upon return. Wear a face covering during all fueling operations. Following fueling, wash hands with soap and water or use hand sanitizer, use CDC guidelines for proper hand washing procedures. Prior to bathroom use, disinfect any commonly touched objects/surfaces (such as door locks, seats, toilet handles, faucets, etc.) with disinfectant. Check disinfectant labeling for proper PPE and contact times. Wash hands following disinfectant use and following use of the facility; your face covering should remain on while using the restroom.
25. Wear a face covering when not alone or in public. Face coverings should cover the nose and mouth. Face coverings and N95's with an exhalation valve are prohibited on EPA sites and in any EPA facility. Voluntary use of N-95 respirators as a face covering for EPA personnel is allowed in accordance with the current EPA COVID-19 respiratory guidance. All personnel are required to take the EPA Voluntary Filtering Facepiece N95 Respirator Use Training. Wearing any respirator with an exhalation valve is not a substitute for social distancing, so employees should continue to maintain six feet between themselves and others whenever possible while wearing a respirator with an exhalation valve. Use of exhalation valved face coverings and N-95's is strictly prohibited on EPA sites. Face shields are available; however, they should be utilized in addition to, rather than as a replacement for, face coverings.

Additional Considerations - Mobilization for Emergency Response

26. If responders are using the EPA Region 2 Mobile Command Post (MCP), 1 person should be designated as the driver for the vehicle. Occupancy of the vehicle should be limited to 3 individuals: working in the cab, the computer area, and conference area respectively. The mobile command post must not be used for meetings. Meetings with multiple staff or outside parties should be conducted outside the vehicle using standard social distancing practices. While in use allow for maximum ventilation of MCP by keeping doors and windows open. The command post should be thoroughly disinfected at the end of each day.
27. When arriving on-site, it may be necessary to coordinate with other Federal, State and/or local responders, the press, PRPs or the public. EPA and contractor personnel should maintain social distancing. If it is necessary to directly communicate with any of these

parties, ensure that all parties are wearing a face covering. To the extent possible, avoid having meetings in enclosed Command Posts. If it is necessary to communicate with non-EPA personnel and they are not wearing a face covering, ask them to put one on while maintaining social distancing. Disinfection kits have a limited stock of surgical masks for non-EPA usage.

Additional Considerations - Mobilization for Overnight Travel

28. While at hotels, disinfect commonly touched surfaces in the room (such as door handles, light switches, bathroom faucets, toilets, TV remote, telephone, etc.) with an EPA COVID-19 registered cleaner or equivalent (https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2). If it is determined that multiple nights will be required, source a hotel with in-room kitchens (one person per room) if possible.
29. Wash hands and face prior to food preparation, cooking, eating, or smoking.
30. Limit unnecessary travel. Travel should be limited to the Site, hotel, to fuel your vehicle, to pick up food or groceries or get necessary supplies. Use curbside pickup or drive-thru for food or other needs if feasible.
31. Limit the frequency of housekeeping services and disinfect commonly touched surfaces after housekeeping services are provided.
32. Avoid hotel breakfast buffets; only consume unopened food items (i.e., yogurt, fresh fruit [wash the fresh fruit prior to eating]). As much as possible, prepare your own meals. Reduce grocery store trips by purchasing groceries once a week and cook meals in the hotel room, if in room kitchen or microwave facilities are available. If in-room kitchen or cooking facilities are not available, consider a meal delivery service or drive through/curbside pickup to minimize public exposure at restaurants.
33. Remain segregated from other individuals. Limit time outside of your hotel room and avoid participation in any gatherings or any place with crowds. If site personnel must meet in person at the hotel, maintain social distancing and meet in open spaces rather than hotel rooms.
34. Remain at the hotel if you are feeling ill, regardless of whether symptoms are consistent with COVID-19 and notify your supervisor for further instructions.

During Daily Site/Response Work

35. Upon meeting at the Site, all personnel should don a face covering, safety glasses or goggles and conduct a tailgate safety meeting. The following provisions and reminders should be included. Face shields may also be donned; however, face shields are not a substitute for wearing a face covering.
    - Tailgate safety meetings should be held outside if possible.
    - A face covering ***must be worn at all times*** during tailgate meetings even if social distancing can be maintained. **A face covering should be worn at all other times, especially indoors, including within trailers and inside residential structures**. In the case of work being performed in high temperatures while

outside and workers can distance greater than six feet, a face mask does not need to be worn. Proof of vaccination does not substitute for wearing a face covering.

- Do not shake hands; use alternative forms of non-contact greeting.
- Avoid touching the face (eyes, nose, mouth).
- Pens and clipboards should not be shared. One person should sign in all site staff. If this is not possible, wear disposable gloves and discard after use.
- COVID-19 procedures should be reviewed every day to ensure the compliance and effectiveness of the procedures/guidelines being implemented.
- Health screening should be reviewed for all site personnel including any visitors or non-delivery truck drivers who will be on-site for 15 minute or more each day. Each individual should sign in/out in case contract tracing is necessary. A Health Screening Form can be found in the COVID-19 HASP addendum or followed below, however, forms serve as a reminder or checklist and should **NOT** be filled out. Health screening should be performed prior to mobilization and daily, including taking of temperatures at the start and end of each day. Should an infrared thermometer not be available, each individual should take their own temperature using fever strips or by other available means (taking care to not share thermometers). Every site worker should complete a daily self-assessment, including:
    i. Feeling unwell or any of the following CDC-identified symptoms of COVID-19 including:
        - Temperature of 100.4 degrees Fahrenheit or higher
        - Chills
        - Cough
        - Shortness of breath or difficulty breathing
        - Fatigue
        - Muscle pain or body aches
        - Headache
        - Sore throat
        - New loss of taste or smell
        - Congestion or runny nose
        - Nausea or vomiting
        - Diarrhea

    ii. Within the last 14 calendar days, have been in close contact (within 6 feet for more than 15 cumulative minutes within 24 hours) with someone confirmed or suspected to have COVID-19, starting 48 hours prior to symptom onset or positive test specimen collection[1]

    iii. Within the last 14 calendar days, have received instructions from a public health authority to self-observe, self-isolate, or self-quarantine

    iv. Within the last 14 calendar days, traveled to an area of higher transmission (>1%)

[1] – The individual may continue work if they have been in close contact with a potential or confirmed positive case only if they have completed vaccination as required by manufacturer (i.e. two weeks following: two doses of Moderna and Pfizer vaccines or single dose of J&J vaccine) within the last three months and is not symptomatic.

- Site personnel who become sick must immediately leave the site and/or remain at home/hotel and self-isolate in accordance with CDC guidance. Follow reporting and contact tracing procedures described at the end of this document for site personnel who begin feeling ill during the day, after hours, or within 48 hours of leaving the site, and for personnel whose test specimen collected within 48 hours of demobilization is positive.
- Avoid sharing equipment and PPE. Issue any respirators or other non-disposable PPE to personnel for the duration of the work; all response workers should be fit tested on the specific respirator they are issued. Limit the sharing of hand tools or establish procedures for decontaminating/preventing the potential spread of the COVID-19 virus through the use of shared tools, such as use of nitrile gloves with a periodic changeout of gloves.
- Any visitor who is showing signs of COVID symptoms or answered yes to any of the health screening questions, will be asked to leave the site.
- If a driver falls into a restricted category (is feeling unwell, has symptoms of COVID-19, being in close contact within the previous 14 days, been instructed to quarantine, or traveled to an area of higher transmission) based on the Health Screening Form, the driver will be required to remain in the cab and materials will be off-loaded by others. The driver's company will be notified that the driver is not allowed to return until the COVID-19 risk is known or until they are cleared based on the Health Screening Form.
- If the driver must provide support to unloading or loading, project personnel will remain clear until the driver completes tasks and returns to his cab. Any surfaces touched by the truck driver should be disinfected using an EPA COVID-19 registered cleaner.
- It is suggested that personnel wear nitrile gloves and do not share pens when handling paperwork such as manifests.

36. If necessary, to encourage compliance of truck drivers and other site visitors with COVID-19 precautions, post signage at the site with site-specific instructions for checking in/out, disinfection procedures, face covering requirements, etc.
37. Each person should disinfect porta-johns after each use with an EPA COVID-19 registered cleaner. If a diluted bleach solution is used, it will need to be made daily. Make sure to change nitrile gloves after cleaning and prior to performing any other tasks. If appropriate, due to high volume of truck drivers and/or visitors, a separate porta-john and hand washing stations should be made available. It is recommended to include signage on the outside of porta-johns to include disinfection procedures.

38. Prior to bathroom use (other than on-site porta-johns), disinfect any commonly used objects (such as door locks, seats, toilet handles, faucets, etc.). Check disinfectant labeling for proper PPE and contact times. Make sure to wash hands following disinfectant use and following using of the facility. Face coverings should remain on while using the restroom.
39. Prior to operating a vehicle, wash hands and face after doffing face covering with soap and water. Use hand sanitizer (on hands only) if washing is unavailable. Do not drive another individual's vehicle without proper disinfecting.
40. Maintain social distancing requirements when taking breaks or consuming food. Avoid sharing communal meals and food storage such as refrigerators and coolers. Provide bottled water instead of a site water cooler to avoid shared surfaces and spaces. Avoid use of a shared coffee pot and microwave or disinfect between uses. Hands and face should be washed prior to food preparation, cooking, consumption, or smoking.
41. For hand tools, radios, etc., prior to usage and in between rotation of personnel, equipment should be disinfected using an EPA COVID-19 registered cleaner. Check product labels for appropriate contact time and PPE. Do not use bleach-based solutions on electronics unless this is the recommendation of the manufacturer.
42. For heavy equipment, prior to usage, all touchpoints such as knobs, handles, wheels, buttons, etc. should be disinfected using an EPA COVID-19 registered cleaner. These points should be disinfected every day and in between rotations of personnel. Check product labels for appropriate contact time and PPE.
43. If the Site requires Level C or higher respiratory protection for exclusion zone work, follow the established plan for the management of used face coverings and PPE in the contamination reduction zone. Plans should include marking and segregating individuals' respirators and face coverings.
    - Cloth face coverings should be removed just prior to donning respirators. The cloth mask should be placed into a breathable bag (such as a paper or cloth bag), tagged with the individual's name and placed in a suitable location in the contamination reduction zone/decontamination area, preferably within a space designated for each person on-site. When exiting the exclusion zone, the respirator should be doffed last after other PPE has been removed and a face covering should be re-donned immediately. Procedures for management, labeling and disinfection of respirators and cartridges should be established to prevent accidental sharing of this equipment. Respirators should be decontaminated (for chemical exposure) daily in accordance with manufacturer's recommendations. Respirators should also be disinfected (for potential COVID-19 exposure) daily. DO NOT USE ISOPROPYL ALCOHOL ON RESPIRATORS! Isopropyl alcohol may degrade mask material. Respirators should be disinfected daily using a 5,000 ppm solution of bleach, approximately a 1:10 ratio. For disinfecting of respirators, use two cups bleach per gallon of water or three ounces per 24-ounce container (use spray bottle in disinfection kit). Allow respirators to dry for off-gassing of bleach.

- While responders are all wearing Level C or higher, social distancing is not required; however, the social distancing should be followed while donning/doffing and in the presence of those without respirators

44. Any used PPE should be placed in garbage bags and sealed for proper disposal as solid waste.
45. Keep trailers (or any shared spaces such as a command post) clear of clutter and maintain good housekeeping. Trailers should be disinfected at the end of each day, at a minimum. The disinfection schedule should be increased when more than one individual is sharing a site trailer. Disinfect commonly touched surfaces (i.e., doors and doorknobs, tables, chairs, coffee pot, etc.) using an EPA COVID-19 registered cleaner. Check product labels for appropriate contact time and PPE.
46. At the end of the day, wash hands or sanitize hands prior to demobilizing.
47. Site vehicles should be cleaned/disinfected on a regular basis and in between personnel rotations (if vehicles are being shared); daily disinfecting is recommended. Bleach based disinfectants are not recommended for vehicle disinfection due to extended off-gassing and potential damage to the vehicle interior. Non-bleach-based disinfectants are recommended, such as alcohol-based solutions. Please review disinfectant labeling for proper PPE and contact times. If no alcohol-based or other disinfectant is available, a soap and water solution can be used.
48. If an individual becomes ill resulting in vomiting or expelling of body fluids while on-site, affected face coverings should be doffed and appropriately managed/cleaned prior to re-use; a new covering should be donned immediately after the incident.
    a. If an individual has vomited, they should be stabilized, removed from site operations and assisted as needed to leave site and, if necessary, seek medical attention.
    b. If body fluids (i.e. blood, vomit, etc.) are expelled, clean-up should be performed while wearing a face covering and nitrile gloves at minimum; an appropriate disinfectant should be used. Check disinfectant labeling for proper PPE and contact times.
    c. Any items such as paper towels used for used for cleaning purposes should be carefully managed to avoid potential cross contamination of personnel and surfaces, sealed in a garbage bag and disposed as solid waste.

Additional Considerations - During Daily Site/Response Work for Emergency Response

49. In the event work is being performed in a joint center such as the RRCC, NRCC, or EOC make sure there is adequate room for social distancing. If adequate room is not available OSC should arrange to operate remotely at the coordination center.
50. EPA personnel who have been in direct contact with a COVID-19 affected person must notify their supervisor and the Response Section Chief, Deputy Regional Incident Coordinator, and/or RPB Branch Chief (to find another responder), follow EPA injury/illness reporting requirements, and self-quarantine in accordance with EPA and CDC guidance (see below for specifics on isolation).

51. To the extent possible, establish an EPA-only Command Post, limit conversations with outside agencies to areas outside the Command Post whenever possible. Communication with outside partners such as FEMA, State and local agencies and the public, should be conducted remotely or in outside spaces using social distancing. For any media inquiries, contact Elias Rodriguez, Media Relations Branch, Branch Chief at 212-637-3664.

Additional Considerations - During Daily Site/Response Work for Residential

52. Prior to meeting a resident, property owner, or occupant, don new nitrile gloves, and other appropriate PPE. Ask all property occupants to wear an appropriate face covering (CDC compliant face covering [EPA to provide if the occupant does not have an appropriate face covering]). Any child (under the age of two) or individual who is unable to don a face covering, should be requested to move into another room (away from response personnel) while work is being performed, for their own safety. When possible, windows should be opened in the residence to increase ventilation prior to work and while work is being performed. Any building with an HVAC system should have the system in operation while work is being performed.
53. EPA should request that all occupants socially distance themselves (at least six feet) from response personnel while work is being performed in their space. Request to limit the number of occupants interacting with response personnel; all others should maximize their distancing from response personnel.
54. Do not use residential bathrooms.
55. Each residential structure to be entered should be considered an exclusion zone. Limit the number of entries required to perform the work and establish decontamination procedures to be followed upon egress. Enter the residential or mixed-use property with all equipment necessary and use the minimum number of personnel required to perform the tasks.
    - Avoid multiple trips inside/outside the property structure.
    - Avoid unnecessary extended time inside the property structure.
    - If the resident/owner/occupant wants to discuss the Site and/or additional logistics, request to move the meeting to an outdoor space away from contractors/subcontractors. Social distancing should be maintained at all times.
    - If equipment is forgotten and a return trip to the vehicle is required, gloves should be doffed upon leaving the residence and a new pair should be donned prior to re-entering. A face covering should remain on.
    - If equipment is brought into the residence but cannot be installed (ie. Air purifiers) or if sampling equipment (ie. Summa canisters, SKC Pumps, lumex, glassware, etc.) is brought into the residence, the equipment should be managed as contaminated and be disinfected outside prior to being loaded for transport or prepared for shipment (such as samples). Such equipment should be cleaned/disinfected in accordance with manufacturer's recommendations. If deconning may affect sampling results, double bag instrumentation or sample collection devices.

56. Upon leaving the residential building, all PPE should be removed at a designated point as close to the building as feasible, handled as if contaminated, placed in garbage bags and sealed for disposal as solid waste. Wash hands with soap and water after doffing nitrile gloves. Use hand sanitizer (>70% alcohol) if washing is unavailable. A face covering should remain on at all times.

Following Daily Site/Response Work

57. Cloth face coverings should be changed daily at a minimum and washed with soap and water or disposed of as solid waste. Face coverings should be maintained in a dry condition while being worn and changed more frequently as needed in hot/humid weather or when wet.

58. All site personnel should self-monitor for signs and symptoms of COVID-19 illness for a period of 14 days following site work. Any COVID-19 suspected illness that occurs during the 14-day monitoring period must be reported to contractor Health and Safety personnel and the EPA OSC; ***follow Contact Tracing requirements*** below. EPA personnel should coordinate with their supervisor prior to reporting to the office to discuss work at home options for the 14-day monitoring period.

Demobilization

59. Similar to mobilization, avoid unnecessary stops or diversions. When self-fueling the vehicle, wipe down screens/buttons and gas pump handle or utilize gloves and dispose following fueling. When using full service fueling, only crack the window to hand the attendant the credit card (instead of opening the window fully) and wipe down the credit card upon return. Wear a face covering during all fueling operations. Following fueling, wash hands with soap and water or use hand sanitizer. Use CDC guidelines for proper hand washing procedures. Prior to bathroom use, disinfect any commonly touched objects/surfaces (such as door locks, seats, toilet handles, faucets, etc.) with disinfectant. Check disinfectant labeling for proper PPE and contact times. Wash hands following disinfectant use and following use of the facility; your face covering should remain on while using the restroom.

60. The interior of the vehicle should be cleaned with disinfectant and all trash should be disposed of as solid waste. Bleach based disinfectants are not recommended for vehicle disinfection due to extended off-gassing. Non-bleach-based disinfectants are recommended such as alcohol-based solutions with at least 70% alcohol. Please review disinfectant labeling for proper PPE and contact times. If no alcohol-based or other disinfectant is available, a soap and water solution can be used. Note in the vehicle logbook that it has been disinfected.

61. Replace any used items from the disinfection kit(s). Additional supplies can be found in the equipment room.

Guidance for Exposed, Symptomatic and Confirmed Positive Individuals

62. **Persons exhibiting symptoms or confirmed positive for COVID-19:** Persons who exhibit flu-like symptoms or who obtain a positive COVID-19 result must be removed from site work and requested to self-isolate in accordance with CDC and local health guidelines (https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine-

isolation.html and https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/isolation.html). Site personnel who become sick or obtain a positive COVID-19 result must notify their supervisor and will be given direction either to leave the site or remain at home/hotel and self-quarantine in accordance with CDC guidance. As of 3/12/21, CDC currently recommends that self-isolation should continue:

- At least 10 days since symptoms first appeared or positive test specimen is collected **and**
- At least 24 hours with no fever without fever-reducing medication **and**
- Other symptoms of COVID-19 are improving. (Loss of taste and smell may persist for weeks or months after recovery and need not delay the end of isolation.)

CDC presents the option of ceasing quarantine on day 7 after receiving a negative test result (when test occurs on day 5 or later), but continues to endorse a 14-day quarantine; EPA Region 2 generally supports the more conservative 14-day quarantine.

For individuals with a severe illness from COVID-19 (admitted to the hospital and needed oxygen), a healthcare provider may recommend that staying in isolation for longer than 10 days after symptoms first appeared (possibly up to 20 days).

All contractors and employees should self-isolate at home or in their hotel room until given medical instructions to do otherwise. Do not return to work if ill; follow agency, FOH, and CDC guidance as required. If symptoms become severe, such as shortness of breath or respiratory distress, the individual should contact 911 or the nearest hospital for local guidance on COVID- 19 testing and treatment. Additional guidance may be sought from the local health department.

63. **Transportation for individuals suspected of having COVID-19, or confirmed positive for COVID-19**: Sick employees should contact their employer for guidance on how to proceed prior to traveling (e.g., see a doctor, return home, stay in hotel room, etc.). Unless absolutely necessary, public transportation should not be used; however, if unavoidable, the employee must follow all mass transit system safety requirements. All individuals should wear a face covering and practice frequent hand washing and/or sanitizing.
64. **Cleaning Potentially Contaminated Surfaces:** Areas used by the person who is sick or infected should be blocked off to other site personnel and ventilated by opening doors and windows for 24 hours, if possible, and then cleaned following CDC guidance found at https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html. This includes waiting 24 hours after the sick individual utilized the space, if possible, wearing disposable gloves, and disinfecting potentially contaminated surfaces with EPA registered COVID-19 disinfectants, following manufacturer-recommended contact times and safety recommendations. See the planning for mobilization section for further information on bleach and isopropanol solutions.
65. **Exposed persons who are asymptomatic (no symptoms)**: In addition to infected and potentially infected individuals who are exhibiting flu-like symptoms, exposed individuals who had close contact with anyone who has exhibited symptoms of or has

been diagnosed with COVID-19 within the past 14 days, *but are not experiencing symptoms,* will also be removed from the project site. They may not return until after 10 days of self-isolation. Close contact includes being within six feet of someone who has COVID-19 for 15* minutes or more, cumulatively, within a 24 hour period, providing care to someone sick with COVID-19, having direct physical contact with the person, sharing eating or drinking utensils, or having contact with respiratory droplets including from a sneeze or cough, any of which occurs starting from two days before symptom onset or prior to positive test specimen collection. It is recommended that these individuals be tested at least five days after the exposure occurred.

If an individual has been fully vaccinated (two weeks following the second vaccine shot of Pfizer or Moderna vaccine or two weeks following the single J&J vaccine shot) and the individual is not showing symptoms, they are exempted from self-isolation, however, they are still required to monitor for signs and symptoms and they must be able to show proof of vaccination.

*The NY State definition of close contact includes 10 minutes instead of 15 minutes.

Contact Tracing and Illness Reporting

66. All site personnel should monitor for signs and symptoms of COVID-19 for 14 days after leaving the site.
67. Contact tracing must be conducted for site personnel who begin feeling ill during the day, after hours, or within 48 hours of leaving the site, and for anyone who receives a positive result from a test which occurs within 48 hours of site demobilization. Contact tracing should continue if any site personnel exhibit COVID-19 symptoms or test positive within 14 days following demobilization. The affected person should immediately notify their supervisor or health and safety manager, who should ensure the lead OSC as well as the ERRS RM and START Task Lead as applicable are aware. If one of these parties is ill, their first-line supervisor should be included on the initial notification. These parties (OSC, RM, Task Lead or if ill, supervisor) are collectively responsible for ensuring that all site personnel, subcontractors, respective Program Managers and internal/corporate health and safety personnel are notified of potential COVID-19 exposure (including for EPA personnel, the Region 2 Safety, Health and Environmental Management Program [SHEMP] manager). Confidentiality must be maintained throughout the contact tracing process. Reporting and contact tracing procedures should be included in the site HASP.
68. Local, county and state health departments are responsible for initiating contact tracing for confirmed positive COVID-19 cases aside from site-specific and internal contact tracing. Based on the potential for non-compliance with contact tracing through these channels, this is not a substitute for the site-specific contact tracing procedures outlined above.

KEMRON
Standard Operating Procedures

KEMRON SOP-COVID19
Revision: 02

STANDARD OPERATING PROCEDURE
FOR COVID-19 PANDEMIC

KEMRON Environmental Services, Inc.
8521 Leesburg Pike, Suite 175, Vienna, VA 22182 (Vienna)
1359-A Ellsworth Industrial Boulevard, Atlanta, GA 30318 (Atlanta)
2343-A State Route 821, Marietta, OH 45750 (Marietta)
108 Craddock Way, Suite 5, Poca, WV 25159 (Charleston)
3155 Black Hawk Drive, Building 379, Fort Sheridan, IL 60037 (Chicago)

Approved by:

Leland Meadows, Technical Advisor — 12/04/2020 Date

John Dwyer, President — 12/04/2020 Date

VERSION CONTROL

Version	Changes	Affects Section	Effective Date
00	-	All	09/03/2020
01	Editorial corrections	All	09/18/2020
02	CDC close contact, Client notification	3.3 and 5.4	12/04/2020

TABLE OF CONTENTS

LIST OF ATTACHMENTS

Attachment A – KEMRON Office Signage
Attachment B – Coronavirus Awareness Training
Attachment C – Symptoms Flyer
Attachment D – Activity Hazard Analysis

DEFINITIONS

Absenteeism: The act of consistently staying away from work or school without producing effective work.

Pandemic: an outbreak of a disease that occurs over a wide geographic area and affects an exceptionally high proportion of the population

Pathogen: A bacterium, virus, or other microorganism that can cause disease.

Risk: A situation involving exposure or potential exposure to COVID-19 and possible loss or injury.

Virus: A submicroscopic infective agent that typically consists of a nucleic acid core in a protein coat, that is capable of growth and multiplication only in living cells, and that cause various important diseases in humans, animals, and plants.

Workplace: An area in which a person or persons conducts work for the place of employment, whether in the field, in the office, or at home.

1 PURPOSE

This standard operating procedure (SOP) is intended to provide guidance for reducing the risk of SARS-CoV-2 exposure to office workers, field staff, subcontractors, and the public by outlining the preparation of the workplace in addition to providing precautions to take before and during field activities. SARS-CoV-2 is the infections virus that causes COVID-19. This procedure is specific SARS-Cov-2, but is applicable to any Pandemic. This guidance is not a regulation and it creates no new legal obligations. It contains standards incorporated at an internal level, and is applied to subcontractors to KEMRON Environmental Services, Inc.

This SOP is intended to be supplementary guidance to national COVID-19 official guidance by the Center of Disease Control and Prevention, the National Institute for Occupational Safety and Health, the Occupational Safety and Health Administration, and the Federal Emergency Management Agency. Additional requirements may be instituted based off contractual requirements, site-specific project planning documents, or site conditions.

2 SCOPE

COVID-19 guidelines may require varying levels of both preventative and active response. This document aims to outline guidelines to be followed to either prevent exposure to SARS-CoV-2 and provide suggested instructions on how to reduce the risk of contraction or spread of the virus, or what to do in case exposure has already occurred.

3 RESPONSIBILITIES AND COMMUNICATION

KEMRON has designated the Corporate Health and Safety Manager, Leland Meadows, as the Corporate Pandemic Virus Coordinator (PVC). Mr. Meadows will oversee the Pandemic Response Team (PRT) to anticipate the impacts of a pandemic on KEMRON and to assist with developing strategies to manage the effects of a virus outbreak.

Each regional operation will identify and designate a Pandemic Continuity Coordinator and component-level PRT, with representatives of relevant stakeholders. The designated HQ Pandemic Virus Continuity Coordinator is the Corporate Office in Atlanta, GA. Each region's Pandemic Continuity Coordinator should work closely with the Corporate Continuity of Operations Plan. KEMRON is comprised of the following entities:

1. President – John Dwyer – 404-601-6901
2. Chief Financial Officer – Melanie Brown – 404-601-6910
3. Human Resources Manager – Danie Penenburgh – 703-893-4106
4. Atlanta, GA – Corporate Pandemic Viruses Coordinator – Leland Meadows – 404-601-6949
5. Charleston, WV – PVC – Chris Amick – 304-769-8883
6. Chicago, IL – PVC – Lou Ehrhard – 847-748-7611
7. Marietta, OH – PVC – Marilyn Zumbro – 740-373-1420
8. Vienne, VA – PVC – Danie Penenburgh – 703-893-4106

Further responsibility is inherent in each individual to evaluate their environment and to take proper preventative measures to reduce the risk of exposure, or to communicate unsafe work practices to their immediate supervisor. Supervisors, project managers, and the regional PVC should take advanced precautions to ensure the proper levels of risk mitigation are implemented. If an employee is exposed to COVID-19, or is experiencing symptoms of COVID-19, that employee should immediately contact their medical provider and inform their supervisor and their supervisor will elevate the concern to the Corporate Health and Safety Officer, Leland Meadows.

3.1 Off-Site Medical Communication

A list of emergency contacts and hospital information is provided for each office or field office in either Emergency Action Plans or Safety and Health Plans, respectively. In the case of a medical emergency, the Regional Manager and Health and Safety Officer shall determine the nearest appropriate facility.

3.2 Internal Communication

Visitors and employees entering KEMRON office buildings, field office structures, or project sites will be subject to standard screening practices such as COVID-19 exposure questioning, temperature checks, and sign-in logs. This information will be documented for communication should an employee or visitor show signs of COVID-19 infection. This information is used to track personnel exposure within the office or jobsite.

Employees or subcontractors that appear to exhibit symptoms or become sick while at a KEMRON office or field worksite shall immediately remove themselves from the work area, self-isolate, and return home or to temporary living quarters. Employees and subcontractors that exhibit symptoms or become sick at a KEMRON location or within 48 hours of demobilization from a KEMRON office or field worksite must report this occurrence to their supervisor, local PRT, and Corporate PVC. KEMRON will notify all involved and applicable personnel including clients, subcontractors, and employees of the possible exposure and conduct exposure tracking and contact tracing. Individuals that exhibit symptoms or become sick are highly encouraged to get tested and report results to management to assist with exposure tracking and contact tracing.

In the event that an employee or visitor is exposed to COVID-19, the above tracking information will be provided to the regional PVC to conduct exposure tracking. If the results of exposure tracking indicate the potential of 10-20% of personnel being exposed, then the PVC and PRT may enforce a shutdown of the office or jobsite pending an audit. The site exposure audit will consist of a review of current policies, procedures and methods of implementation. If the jobsite is unable to successfully implement corrective measures identified by the audit through increased communication, additional resources and re-training, then the PVC and PRT will enforce shutdown of operations.

3.3 Customer Communication

Information regarding COVID-19 exposure potentially affecting project activities will be transparently conveyed to the client. KEMRON will notify all involved and applicable clients, subcontractors, and employees of the possible exposure and conduct exposure tracking and contact tracing. Communication pathways will be established with the client to effectively disseminate prudent information to customers and suppliers. If COVID-19 exposure presents an unacceptable risk, then the PRT or PVC shall temporarily freeze project activities. The resumption of project activities shall be situationally evaluated and communicated on an, at minimum, weekly basis to the client.

3.4 Communication Plan Review and Lessons Learned

Communication pathways and information gathering strategies will be periodically tested through simulated scenarios to ensure it is effective and workable.

Following the evaluation of the Pandemic Plan, communication pathways, and implementation of other response components, the PRT should identify learning opportunities and act to implement corrective actions. This SOP and the Pandemic Virus Plan will be updated with the lessons learned from evaluations and implementation.

4 RISK

Risk in the workplace can be identified in at the individual level and communal level, as well as impose risk to the business continuity plan. Generally, the risk starts at the individual level, and can be elevated through the community, and potentially effecting business continuity. The risk of individual exposure is subjective

to the types of activities that the individual engages in. Types of general activities can be categorized into three levels of risk; low risk, medium risk, and high risk. The below table identifies the levels of risk, assuming that face masks are worn, social distancing is maintained, and people with underlying medical conditions are taking increased precautions:

Table 1: Activity Exposure Risks

Low Risk	• Staying in a hotel or vacation rental • Going to the beach with a small group • Going for a walk, run, or bike ride • Playing non-contact sports (i.e. golf, tennis) • Camping • Grocery shopping
Medium Risk	• Air/train travel and public transportation • Amusement parks • Taking your children to the playground • Swimming at a public pool • Playing low-contact sports (i.e. volley ball, baseball, softball) • Attending a service at a place of worship • Outdoor parties with friends and family • Going to hair salons, libraries, the mall, the office, school.
High Risk	• Going on a cruise • Crowded beaches • Going to the gym • Eating indoors at a restaurant • Playing high or full-contact sports (i.e. football, basketball) • Going to large concert venues • Going to bars • Going to movie theaters

Note: Does not contain all activities, only generic ideas to easily categorize your activity risk

An evaluation of job-related risks will be conducted prior to mobilization of personnel to avoid medium and high-risk situations to the fullest extent practical. Employees will socially distance themselves between employee work areas and decrease the possibility of contact by limiting large gatherings (greater than six people) and close contact. Employees are also encouraged to limit participation in medium to high risk situations, socially distance, and avoid large gatherings in their personal lives.

Although some of these activities are unavoidable in day-to-day life, it is important to recognize the risk of each activity, and to qualify the exposure risk before participating in extra-curricular activities.

4.1 Exposure Risks in the Workplace

Workplaces are subject to exposure on a communal level, such that widespread person-to-person exposure is possible when one or more guidelines are not implemented. In the absence of enforced standards and guidelines, a workplace may experience:

- **Absenteeism.** Workers could be absent because they are sick; are caregivers for sick family members; are caregivers for children if schools or day care centers are closed; have at-risk people at home, such as immunocompromised family members; or are afraid to come to work of fear of possible exposure.

- **Interrupted supply/delivery.** Shipments of items from geographic areas severely affected by COVID-19 may be delayed or cancelled with or without notification. This can impact production

efficiency at the workplace by inhibiting regular supply chains of essential, and non-essential goods and services to the workplace or to remote workers.

- **Workplace closures.** Infection of even one individual within a common work area may require the office to be closed to essential and non-essential personnel, in an effort to minimize exposure. Some individuals find that their ability to work efficiently depends on their capability to work within the office. Full office closures will reduce effectiveness in production, communication, and cooperation.

4.2 Field Exposure

While the likelihood of exposure in the field can be minimized more easily because of the outdoor environment, diligent efforts must still be made to implement and enforce precautionary plans to reduce the risk of exposure to COVID-19. Before initiating field activities, staff should evaluate the exposure risk level of the scope of work that is to be conducted. The following table should be used to define work tasks associated with exposure risks:

Table 2: Field Activities Exposure Levels

Lower Risk	Medium	High	Very High
Task that allow employees to remain at least 6 feet apart and involve little contact with the public, visitors, or customers. Note: For activities in the lower (caution) risk category, OSHA's *Interim Guidance for Workers and Employers of Workers at Lower Risk of Exposure* guidance may be most appropriate.	Tasks that require workers to be within 6 feet of one another. Tasks that require workers to be in close contact (within 6 feet) with customers, visitors, or members of the public.	Entering an indoor work site occupied by people such as other workers, customers, or residents suspected of having or known to have COVID-19, including when an occupant of the site reports signs and symptoms consistent with COVID-19.	Category not applicable for most anticipated work tasks.

5 PLANNING AND PRECAUTIONS

This section is intended to assess the potential hazards in which workers or the public may be exposed, and provides recommendations on the steps to take before, during, and after recognition of the threat.

5.1 Work Practices and Business Continuity

The intent of a business continuity plan is to outline how a business will safely operate during an emergency. Ensuring the health and safety of KEMRON employees is essential in maintaining an effective business model. Maintaining a safe and effective business model throughout the COVID-19 pandemic is essential in both keeping employees healthy and maintaining client expectations. Achieving business continuity can be done through the training, planning, preparation, and implementation of the guidelines provided in this SOP. Methods to increase the likelihood of maintaining a safe and productive work environment include:

- Work from home policies
- Teleconferencing
- Implementing policies and practices for social distancing
- Frequent decontamination of the office
- Limiting headcount in the office
- Going paperless
- Decontamination of vehicles

Flexible work policies are important to the business continuity plan. Workers are encouraged to stay at home when ill, having to care for ill family members, or when caring for children when schools close, without the fear of reprisal.

Additional office signage is posted throughout common areas and hallways as reminders to those who are present in the office to follow safe and sensible hygiene practices. Reference **Attachment A** for more information.

5.2 Immunization

The business continuity plan relies solely on the health and safety of each individual at KEMRON. Employees are encouraged to obtain the proper immunizations when they become available. Granting time off to obtain the vaccine is crucial to allow the employees the freedom to immunize themselves.

Key contacts must be notified if an outbreak impacts KEMRON's ability to perform services. This includes employee personnel, customers, and suppliers.

5.3 Internal Outbreaks

An outbreak at the office or jobsite is defined as 10-20% of employees at an office or jobsite becoming infected or exposed to COVID-19. Should this large of a percentage of personnel become ill and contractual obligations are jeopardized, then the client will be informed of a temporary jobsite shutdown, or of increased remote work reliance.

5.4 Federal, State and Local Laws and Regulations/Guidance on Quarantine

Employees will maintain regular checks on state and local guidelines to ensure that the regulations are being followed. Employees will consider their plans for out of state travel and confirm the local guidelines prior to traveling and daily while traveling.

Current federal guidance states, if an employee has been in close contact with an individual that has tested positive, the employee must quarantine for a 14-day period. Close contact is defined by CDC as someone

who was within 6 feet of an infected person for at least 15 minutes starting from 2 days before illness onset (or, for asymptomatic clients, 2 days prior to positive specimen collection) until the time the patient is isolated. Even if you test negative for COVID-19 or feel healthy, you should stay home (quarantine) since symptoms may appear 2 to 14 days after exposure to the virus.

In order to comply with OSHA requirements, KEMRON will maintain an internal confidential database to track confirmed cases of exposure and potential exposures that result in quarantine. During the initial assessment of potential or later confirmed cases, KEMRON will conduct a root cause analysis, exposure tracking and contact tracing. Employees that quarantine will follow KEMRON policies, procedures and recommendations which may be more stringent than federal, state and local requirements.

5.5 Training

Employees will be trained on health issues pertinent disease to include prevention of illness, initial disease symptoms, preventing the spread of the disease, and when it is appropriate to return to work after illness. Disease containment plans and expectations will be shared with employees. Communicating information with non-English speaking employees or those disabilities must be considered.

Employees will also be provided access to the Pandemic Virus Plan. This plan should be reviewed and tested periodically. Reviews should coincide and be consistent with changing federal, state, and local guidance.

Weekly safety message memos, safety messaging, and monthly stand-downs will be used safely communicate employee expectations and any-changing state and local guidelines and regulations.

A coronavirus awareness and training presentation can be found in **Attachment B.**

6 IMPLEMENTATION

This section outlines the processes to implement risk mitigation strategies for common project components.

6.1 Travel

Prior to travelling to a jobsite, personnel should conduct self-monitoring for potential illness/health status. Personnel ***should not*** travel if experiencing symptoms of any illness, or has traveled abroad within the last 14 days.

When traveling, personnel should plan in advance to confirm that their lodging has their own COVID-19 plans and precautions that are being implemented within the premises. The employee should also verify that the lodging facilities have been disinfected prior to your arrival. If multiple employees are traveling to the jobsite, it should be encouraged to have each person drive in a separate vehicle. If extraordinary circumstances warrant more than one person in a vehicle, then a consistent buddy system should be used to limit the potential spread of pathogens to multiple individuals.

Employees traveling out of state should check for state, local, or tribal guidance that may vary from their own.

6.2 Field Activities

Prior to mobilization of personnel, the project manager will assemble a crew for the project. The project crew will be assembled based on current COVID-19 regulations and recommendations by federal, state, local, and/or territory/tribal entities. Based on the type of project and response, KEMRON will first look locally for staffing accommodations that meet specific project needs and requirements. This review of local personnel includes KEMRON employees, teaming partners and subcontractors. Next, KEMRON will evaluate providing personnel from non-impacted states. Finally, KEMRON will evaluate how to safely and effectively implement personnel from impacted states. This will be a fluid and ever-changing strategy to

balance quarantine with limiting the potential spread of COVID-19 through restrictions by site personnel, testing (results) and contact tracing where appropriate.

After personnel have been cleared to proceed with field activities, several measures will be taken to adhere to the most stringent guidelines and recommendations outlined in this document, and the Corporate Health and Safety Department. KEMRON personnel will also implement United States Environmental Protection Agency (EPA) Step by Step considerations for working on a removal site into site-specific Health and Safety Plans and Emergency Action Plans. These considerations cover risk assessments and planning, travel, staying in hotels, field work, and guidance for exposed and symptomatic employees and recommendations for remaining safe after hours.

The implementation of each recommendation may change depending on site conditions. KEMRON policy for field activities is as follows:

- **Pre-Screen:** Assess your symptoms daily prior to starting work. **Do not come in** - if you feel that you may have a fever (100.4 degrees F), tingly, sore throat or dry cough, flu, chills, shortness of breath or difficulty breathing, fatigue, repeated shaking with chills, muscle pain, headache, sore throat, new loss of smell or taste, congestion or runny nose, nausea, vomiting, diarrhea, etc. Call your manager and get in touch with a doctor through Telehealth. Additionally, employees should consult with subcontractors and other external personnel to determine whether they have shown symptoms, been in contact with someone who has shown symptoms, or has been in a high risk environment within the last two weeks.

Screening Questions	Recommended Action
1. Is the field work at an occupied work site essential, urgent, or emergency work?	If “yes,” proceed with a hazard assessment to determine how best to proceed while minimizing exposure for the worker. See the questions below.
2. Are there any individuals in the occupied site under quarantine or isolation due to a confirmed case of COVID-19?	Closely follow recommendations from the Centers for Disease Control and Prevention (CDC), EPA, OSHA, and World Health Organization (WHO), State and Local guidelines, and this SOP.
3. If the work is determined to be essential, urgent or **emergency work**, are there any individuals or contractors in the occupied site suffering flu-like symptoms to which your employees may be exposed?	Closely follow recommendations from the CDC, EPA, OSHA, and WHO, State and Local guidelines, and this SOP

- **Wear a Face Mask:** All employees will wear a face mask, or face cloth, at all times while in gatherings, common areas or approaching other employees. The face mask should only be removed in areas in which a minimum of 6-feet can be established and maintained. It is still suggested that employees keep the face mask on while having direct conversation with another person even at a social distance.

- **Social Distance:** Maintain 6 feet at all times and practice social distancing as work duties permit in the field.

- **Wash hands often and frequently disinfect your workspace and equipment:** Each field site will be provided a disinfectant spray or wipes to place in common areas. Please use it to clean up behind yourself.

- **Respiratory etiquette:** This includes coughing and sneezing into your elbow cavity.

In addition to internal KEMRON policy, employees should refer to EPA, CDC, WHO, state, and local guidance. It is important to recognize and comply with the varying state and local government guidelines when traveling between project sites. Additional general recommendations for staff to follow while in the field include:

- If field employees encounter a potentially unsafe situation (e.g., improper social distancing, large crowds, areas with ongoing COVID-19 transmission, etc.), they should remove themselves from that situation, if possible, and contact their supervisor for additional guidance.
- Limit restroom use in convenience stores, gas stations, and public facilities.
- Limit the use of shared coolers for water. Encourage employees to bring and use their own coolers for drinking water.
- Do not shake hands. Use other forms of non-contact greetings.
- Avoid sharing items as much as possible (e.g., pens, cameras, clipboards, tape measure, etc.).
- Conduct initial check-in/screenings for all personnel entering the site. Use one person to log in personnel or use virtual tools like Excel to document personnel check-ins.
- Keep in-person meetings to a minimum. Utilize teleconferences to update field information when needed.
- If the field activities involve work at multiple locations, disinfect Personal protective equipment (PPE) and clothing before moving to the next location.
- Disinfect equipment after use. Minimize sharing tools and equipment as much as possible.
- Follow manufacturer's instructions and use an approved disinfectant when cleaning sensitive equipment such as air monitoring instrumentation.
- Clean or disinfect work areas daily or as needed based on use. Focus cleaning on common touchpoints.
- Disinfect vehicles (wipe down the steering wheel, door handles, touchpoints, etc.) daily, including when checking the vehicle out and when returning. During fueling operations, consider wearing disposable gloves or disinfecting touch screens and pump handles, or use hand sanitizer post fueling.
- Respiratory aerosols, secretions, perspiration, and other potentially infected body fluids can accumulate in PPE. Coach crews to pay closer attention to disinfecting respirators. Emphasize social distancing while donning and doffing PPE and a thorough hand, arm, and face wash after each entry. Attempt to don PPE without an attendant. If an attendant is necessary, the attendant should don respiratory protection or a face covering and protective gloves.
- In general, used cleaning supplies (wipes, paper towels, etc.) and PPE used solely for COVID-19 protection are not considered regulated medical waste. These items are typically disposed as municipal solid waste. Review and follow the waste disposal procedures listed on the disinfectant/cleaning product label.

6.3 Sanitation Facilities

When possible, field handwashing equipment will be augmented to provide more effective field sanitation areas. Field washing stations should be set up on projects that are conducive to a clean staging area. Field washing stations should include, at a minimum, hand sanitizer, soap and water, and no-touch trash receptacles. Adequate lavatory facilities with potable water should be provided for employees to wash their hands at each break, before eating, drinking or smoking, and at the end of the work day.

6.4 Periodic Cleaning

Cleaning and disinfecting of the workplace should periodically be conducted based on the level of risk present and will be conducted more or less frequently depending on current information available. The office area should be periodically fumigated, while field equipment, workspaces, and vehicles should be wiped down and disinfected.

7 STEPS TO TAKE IF YOU ARE SICK

If you are sick with COVID-19 or think you might have COVID-19, follow the steps below to care for yourself and to help protect other people in your home, workplace, and community The word “sick” in this context means feeling or exhibiting unwell conditions or symptoms of any kind and could consist of a variety of issues including:

- Fever (100.4 degrees F or higher) or chills
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

A flyer that will be posted in common areas regarding the typical symptoms of COVID-19 can be found in **Attachment C.** If you are experiencing one of more of these symptoms, follow the following steps:

- **Stay home except to get medical care**
  - **Get tested.**
  - **Stay home.** Most people with COVID-19 have mild illness and can recover at home without medical care. Do not leave your home, except to get medical care. Do not visit public places, the office, or jobsites.
  - **Take care of yourself.** Get plenty of rest and stay hydrated. Take over-the-counter medicines, such as acetaminophen, to help you feel better.
  - **Stay in touch with your doctor.** Call before you get medical care. Be sure to get care if you have trouble breathing, or have any other emergency warning signs, or if you think it is an emergency.

- **Separate yourself from other people**
  - **As much as possible, stay in a specific room** and away from other people and pets in your home. If possible, you should use a separate bathroom. If you need to be around other people or animals in or outside of the home, wear a mask.

- **Monitor your symptoms**
  - Less critical symptoms of COVID-19 include a fever and cough
  - Emergency warning signs for COVID-19 include
    - Trouble breathing
    - Persistent pain or pressure in the chest
    - New confusion
    - Inability to wake or stay awake
    - Bluish lips or face
    - *This list does not contain all possible symptoms. Please call your medical provider for any other symptoms that are severe or concerning to you. If you experience any of the symptoms above **seek emergency medical care immediately.**

Persons who exhibit flu-like symptoms must be removed from site work and requested to self-isolate in accordance with the CDC and local health guidelines. CDC guidelines request that persons self-isolate until the fever has subsided for at least 72 hours without the use of medications, general symptoms have improved, and a minimum of 10-days since symptoms first appeared.

Should the employee decide to get tested, the CDC recommends two consecutive negative tests to be used for determination.

An activity hazard analysis has been completed for all office and field employees, including subcontractors. This document can be found in **Attachment D.**

Attachment A: KEMRON Office Signage

KEMRON

COMBATING THE SPREAD OF COVID-19

- **STAY HOME IF YOU ARE 'ANY KIND OF' SICK, HAVE SIGNS /SYMPTOMS, OR HAVE COME INTO CONTACT WITH SOMEONE WHO TESTED POSITIVE FOR COVID-19;**

- **TAKE YOUR TEMPERATURE BEFORE YOU COME TO THE OFFICE; IF YOUR TEMPERATURE IS ABOVE 100^{O} F, STAY HOME;**

- **IF YOU DON'T HAVE A THERMOMETER AT HOME YOU WILL BE SCANNED AT THE DOOR ALONG WITH VENDORS AND SERVICE PERSONNEL;**

- **PRACTICE SOCIAL DISTANCING AT ALL TIMES;**

- **WEAR A FACE COVERING (MASK) AT ALL TIMES UNLESS YOU ARE IN YOUR OFFICE (ALONE);**

- **PULL YOUR DOOR HALFWAY CLOSED TO PREVENT UNINTENTIONAL SPACE VIOLATIONS;**

- **DO NOT ENTER OTHER EMPLOYEE'S OFFICE OR PERSONAL SPACE WITHOUT PERMISSION AND A FACE COVERING OR MASK;**

IF YOU ARE UNABLE OR UNWILLING TO ABIDE BY THESE SIMPLE RULES YOU WILL BE ASKED TO LEAVE THE BUILDING AND SUBJECT TO DISCIPLINARY ACTION, UP TO POSSIBLE TERMINATION.

EMPLOYEE PERSONAL WORKSPACE

1. **Announce yourself prior to entering this area.**

2. **Request permission to enter this area.**

3. **Ensure you have a face covering (mask).**

IF YOU ARE UNABLE OR UNWILLING TO ABIDE BY THESE SIMPLE RULES YOU WILL BE ASKED TO LEAVE THE BUILDING AND SUBJECT TO DISCIPLINARY ACTION, UP TO POSSIBLE TERMINATION.

COVID-19 Instructions

VENDORS ENTERING THE BUILDING:

You must have a face covering, your temperature taken and sign-in before you are allowed to pass this entry point. Your temperature must be below 100°F.

EMPLOYEES ENTERING THE BUILDING:

Did you take your temperature at home? You must have a face covering and your temperature taken before you are allowed to pass this entry point. Your temperature must be below 100°F.

COMBATING THE SPREAD OF COVID-19

- **STAY HOME IF YOU ARE 'ANY KIND OF' SICK OR HAVE SIGNS/SYMPTOMS OF COVID-19**

- **IF YOU HAVE COME IN CONTACT WITH ANYONE THAT TESTED POSITIVE FOR COVID-19, YOU ARE REQUIRED TO SELF-ISOLATE FOR 14 DAYS. IF YOU DO NOT EXHIBIT SYMPTOMS AFTER 14 DAYS, YOU MAY COME BACK TO THE OFFICE.**

- **TAKE YOUR TEMPERATURE BEFORE YOU COME TO THE OFFICE; IF YOUR TEMPERATURE IS ABOVE 100^{O} F, STAY HOME;**

- **IF YOU DON'T HAVE A THERMOMETER AT HOME YOU WILL BE SCANNED AT THE DOOR ALONG WITH VENDORS AND SERVICE PERSONNEL;**

- **PRACTICE SOCIAL DISTANCING AT ALL TIMES;**

- **WEAR A FACE COVERING (MASK) AT ALL TIMES UNLESS YOU ARE IN YOUR OFFICE (ALONE);**

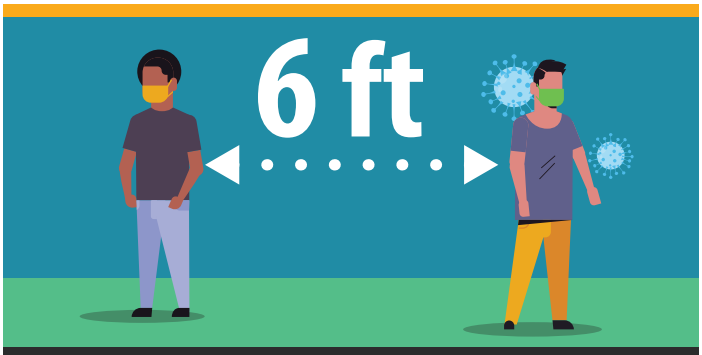
- **PULL YOUR DOOR HALFWAY CLOSED TO PREVENT UNINTENTIONAL SPACE VIOLATIONS;**

- **DO NOT ENTER OTHER EMPLOYEE'S OFFICE OR PERSONAL SPACE WITHOUT PERMISSION AND A FACE COVERING OR MASK;**

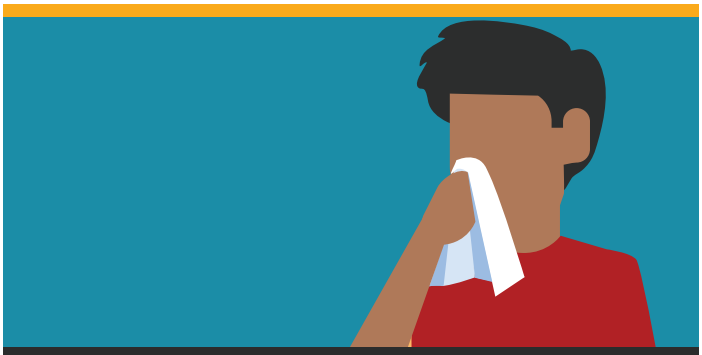
IF YOU ARE UNABLE OR UNWILLING TO ABIDE BY THESE SIMPLE RULES YOU WILL BE ASKED TO LEAVE THE BUILDING AND SUBJECT TO DISCIPLINARY ACTION, UP TO POSSIBLE TERMINATION.

Stop the Spread of Germs

Help prevent the spread of respiratory diseases like COVID-19.

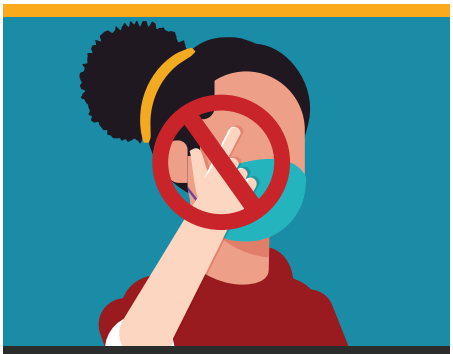


Stay at least 6 feet (about 2 arms' length) from other people.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash and wash your hands.

When in public, wear a cloth face covering over your nose and mouth.



Do not touch your eyes, nose, and mouth.

Clean and disinfect frequently touched objects and surfaces.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.

cdc.gov/coronavirus

316917-A May 13, 2020 11:00 AM

Attachment B: Coronavirus Awareness Training

KEMRON

COMBATING THE SPREAD OF COVID-19

- **STAY HOME IF YOU ARE 'ANY KIND OF' SICK, HAVE SIGNS /SYMPTOMS, OR HAVE COME INTO CONTACT WITH SOMEONE WHO TESTED POSITIVE FOR COVID-19;**

- **TAKE YOUR TEMPERATURE BEFORE YOU COME TO THE OFFICE; IF YOUR TEMPERATURE IS ABOVE 100^{O} F, STAY HOME;**

- **IF YOU DON'T HAVE A THERMOMETER AT HOME YOU WILL BE SCANNED AT THE DOOR ALONG WITH VENDORS AND SERVICE PERSONNEL;**

- **PRACTICE SOCIAL DISTANCING AT ALL TIMES;**

- **WEAR A FACE COVERING (MASK) AT ALL TIMES UNLESS YOU ARE IN YOUR OFFICE (ALONE);**

- **PULL YOUR DOOR HALFWAY CLOSED TO PREVENT UNINTENTIONAL SPACE VIOLATIONS;**

- **DO NOT ENTER OTHER EMPLOYEE'S OFFICE OR PERSONAL SPACE WITHOUT PERMISSION AND A FACE COVERING OR MASK;**

IF YOU ARE UNABLE OR UNWILLING TO ABIDE BY THESE SIMPLE RULES YOU WILL BE ASKED TO LEAVE THE BUILDING AND SUBJECT TO DISCIPLINARY ACTION, UP TO POSSIBLE TERMINATION.

EMPLOYEE PERSONAL WORKSPACE

1. **Announce yourself prior to entering this area.**

2. **Request permission to enter this area.**

3. **Ensure you have a face covering (mask).**

IF YOU ARE UNABLE OR UNWILLING TO ABIDE BY THESE SIMPLE RULES YOU WILL BE ASKED TO LEAVE THE BUILDING AND SUBJECT TO DISCIPLINARY ACTION, UP TO POSSIBLE TERMINATION.

COVID-19 Instructions

VENDORS ENTERING THE BUILDING:

You must have a face covering, your temperature taken and sign-in before you are allowed to pass this entry point. Your temperature must be below 100°F.

EMPLOYEES ENTERING THE BUILDING:

Did you take your temperature at home? You must have a face covering and your temperature taken before you are allowed to pass this entry point. Your temperature must be below 100°F.

COMBATING THE SPREAD OF COVID-19

- **STAY HOME IF YOU ARE 'ANY KIND OF' SICK OR HAVE SIGNS/SYMPTOMS OF COVID-19**

- **IF YOU HAVE COME IN CONTACT WITH ANYONE THAT TESTED POSITIVE FOR COVID-19, YOU ARE REQUIRED TO SELF-ISOLATE FOR 14 DAYS. IF YOU DO NOT EXHIBIT SYMPTOMS AFTER 14 DAYS, YOU MAY COME BACK TO THE OFFICE.**

- **TAKE YOUR TEMPERATURE BEFORE YOU COME TO THE OFFICE; IF YOUR TEMPERATURE IS ABOVE 100^{O} F, STAY HOME;**

- **IF YOU DON'T HAVE A THERMOMETER AT HOME YOU WILL BE SCANNED AT THE DOOR ALONG WITH VENDORS AND SERVICE PERSONNEL;**

- **PRACTICE SOCIAL DISTANCING AT ALL TIMES;**

- **WEAR A FACE COVERING (MASK) AT ALL TIMES UNLESS YOU ARE IN YOUR OFFICE (ALONE);**

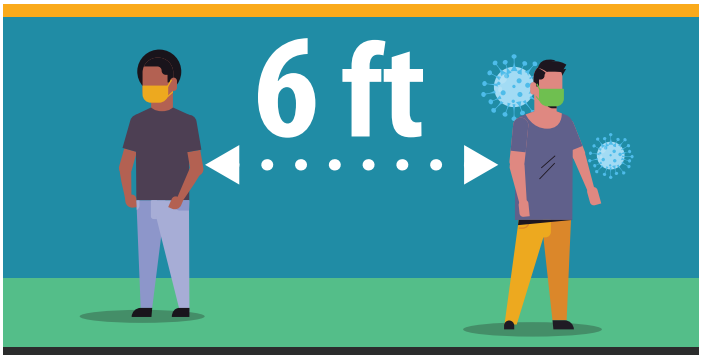
- **PULL YOUR DOOR HALFWAY CLOSED TO PREVENT UNINTENTIONAL SPACE VIOLATIONS;**

- **DO NOT ENTER OTHER EMPLOYEE'S OFFICE OR PERSONAL SPACE WITHOUT PERMISSION AND A FACE COVERING OR MASK;**

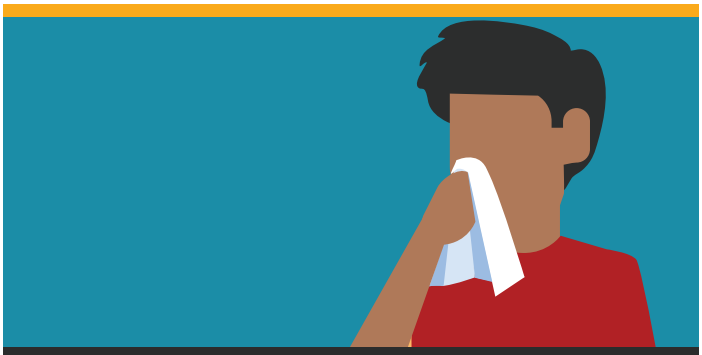
IF YOU ARE UNABLE OR UNWILLING TO ABIDE BY THESE SIMPLE RULES YOU WILL BE ASKED TO LEAVE THE BUILDING AND SUBJECT TO DISCIPLINARY ACTION, UP TO POSSIBLE TERMINATION.

Stop the Spread of Germs

Help prevent the spread of respiratory diseases like COVID-19.

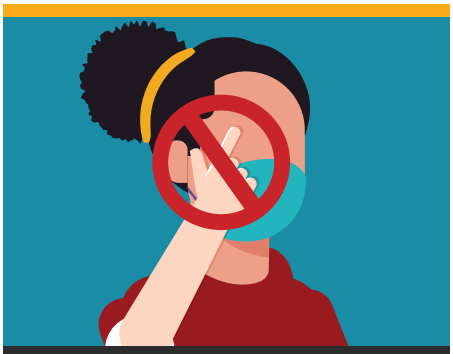


Stay at least 6 feet (about 2 arms' length) from other people.



Cover your cough or sneeze with a tissue, then throw the tissue in the trash and wash your hands.

When in public, wear a cloth face covering over your nose and mouth.



Do not touch your eyes, nose, and mouth.

Clean and disinfect frequently touched objects and surfaces.

Stay home when you are sick, except to get medical care.

Wash your hands often with soap and water for at least 20 seconds.

cdc.gov/coronavirus

316917-A May 13, 2020 11:00 AM

Coronavirus Disease 2019 (COVID-19)

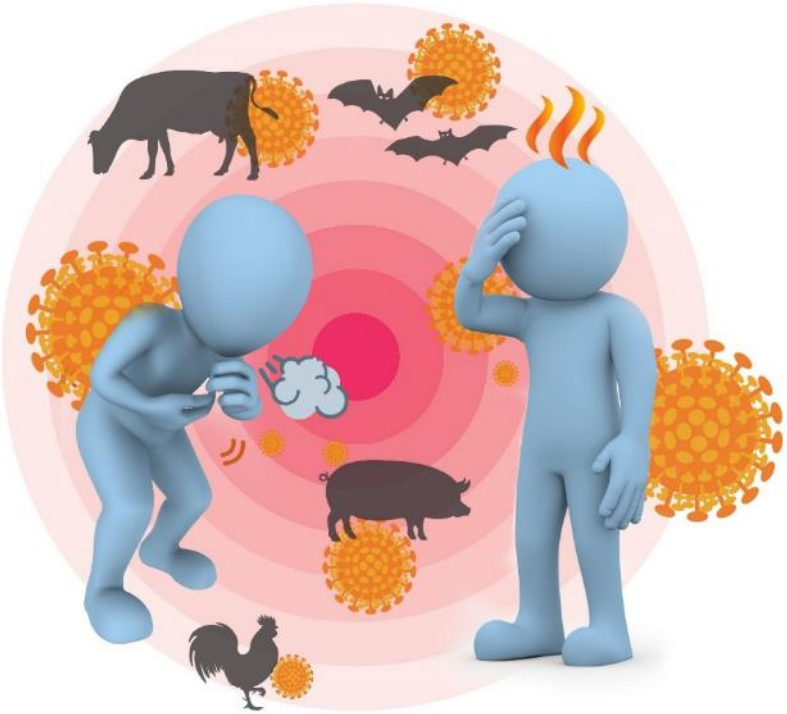
What you need to know

Version 7.0

Disclaimer: This presentation has been developed for educational purposes only. It is not a substitute for professional medical advice. Should you have questions or concerns about any topic described here, please consult your medical professional.

WORLDWIDE REACH. HUMAN TOUCH.

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causes COVID-19



- SARS-CoV-2 is a new virus.
- The first cases were identified in people with **pneumonia** in Wuhan, China, in late December 2019.
- It probably started in animals but is now spreading between people.
- As this virus is new, we are learning more all the time, and what we know now may change.

Travellers have brought the virus into other countries

- Many countries have now detected the virus in travellers.
- Some people who were in contact with these travellers were infected by them.
- Almost every location has recorded cases of COVID-19.
- Although there is a lot we don't know yet about this new virus, we can still prevent the disease.

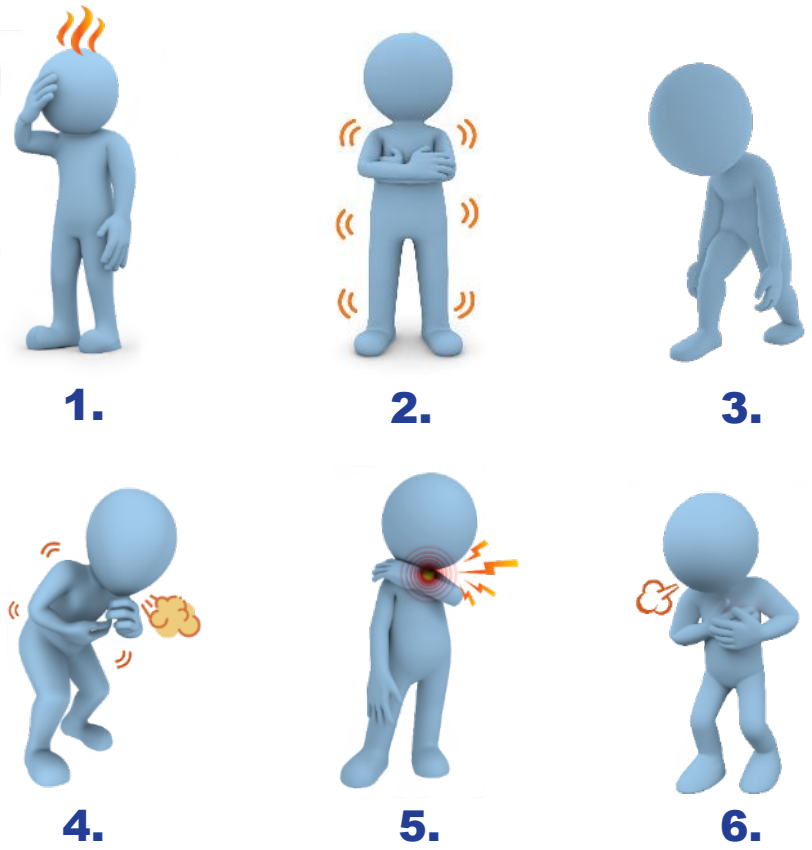
How is COVID-19 spread?

- Most people are being infected from other people, when in close contact.
- It probably spreads the same way as colds and flu – through droplets which are created when we talk, cough and sneeze.
- People can get infected when these droplets enter the nose, eyes or mouth or when they are inhaled.
- Touching contaminated objects puts the droplets onto your hands. If you touch your face the droplets can enter your nose / eyes / mouth.
- Some people have been infected following contact with an infected person with minimal or no symptoms.

Symptoms start like many other illnesses

Common symptoms are:

1. Fever
2. Chills including rigors (chills with shaking)
3. Fatigue
4. Cough
5. Sore throat
6. Shortness of breath and breathing difficulty



Symptoms start about one day after exposure, but can be as long as 14 days.

Some people have no symptoms, **most** have a mild illness. It can be severe and sometimes fatal.

Less common symptoms

1. Headache / muscle aches
2. Diarrhoea
3. Sudden loss of sense of smell and taste
4. Abnormal heart rhythm and heart failure
5. Stroke

1.

2.

3.

4.

5.

Many patients recover fully in about 2 weeks. In others, some symptoms like breathlessness and fatigue may continue for weeks.

INTERNATIONAL SOS

WORLDWIDE REACH. HUMAN TOUCH.

Diagnosis and treatment

Because symptoms are similar to many other illnesses, tests are needed to make the diagnosis (nose/ throat swab, blood test).

There is no specific treatment.

Mild symptoms can be treated with medicine to lower the fever, or relieve pain.

If symptoms are more severe, treatment in hospital is required.

To prevent COVID-19

Maintain good hygiene

- Wash your hands frequently with soap and water.
- Use alcohol-based hand sanitiser when soap and water are not readily available.
- Cover your coughs and sneezes. Use a tissue or your upper sleeve. Immediately throw the tissue in a bin and wash your hands.
- Wear a mask/face covering/ fabric mask in public places, especially when it is difficult to maintain 1-2 metres (3-6 feet) distance from others. Follow local guidelines.
- Avoid touching shared objects (light switches, handrails, door handles etc) as much as possible. If you must touch such objects, wash your hands or use sanitiser promptly afterwards. Ensure you do not touch your face.
- Clean and disinfect frequently touched surfaces each day, more often if you think they've been contaminated. Use normal cleaning supplies.
- Do not share food, drinks and personal items including mobile phones.

If you have any symptoms even if only mild, stay home and seek medical advice. Follow local guidelines.

Avoid exposure

- Maintain social /physical distance - keep 1-2 metres (3-6 feet) away from others, even if they appear well.
- Avoid activities which expose you to large groups of people.
- Maintain social distance while greeting visitors. Avoid shaking hands, kissing or hugging.
- Work from home, where possible.
- Avoid non-essential travel.
- Keep away from people who are sick – don't let them cough or sneeze on you.
- Avoid visiting hospitals and other medical facilities unless you need medical care.

INTERNATIONAL SOS

More on use of masks

- Follow local guidelines
- Wear a mask:
  - When in face-to-face contact with others.
  - When social distancing cannot be achieved.
  - If you are in the high-risk groups.
  - When coughing or sneezing.
  - When caring for a sick person.
  - Within a healthcare facility or other public spaces.
- Masks alone don't protect – they should be used along with other hygiene measures.
- Follow manufacturer's advice for using the mask.

Mask reduces the risk of the wearer spreading the virus.

Are you ready for COVID-19?

Prepare yourself and your family:

- Monitor the situation. Know your local health helpline numbers and be aware of the local procedures.
- Ensure you have access to essentials such as food, water, household supplies and medicines.
- Speak to your doctor about any chronic medical conditions you may have, and get them under optimal control.
- Keep in best possible health. Get the recommended amount of sleep each day, eat a healthy diet, and keep up regular physical activity.
- Consider how you will manage if authorities impose restrictions for a couple of weeks.
- Plan to be able to look after a sick household member.
- Get the flu shot – this will reduce the risk of seasonal flu and possible confusion with COVID-19 symptoms.

INTERNATIONAL SOS

What to do if you get sick

- Stay home. Do not go to work. Minimise contact with other people until you have recovered. Monitor your condition
- Cover your coughs and sneezes – use a tissue or a mask if available – and wash your hands with soap and water.
- **Seek medical attention** if your symptoms worsen. Let the doctor know if you have travelled recently, and if you were in contact with someone who is sick.
- Wear a mask in case you need to visit a doctor. Use private transport as much as possible.

Screening and contact tracing

Is important to stop the spread of the virus

- “Screening” may be done at entry points to detect sick people. You may be asked where you have been, and your temperature may be taken.
- Health authorities may perform “contact tracing” – identifying people who have been in contact with someone with COVID-19.
- These ‘contacts’ may be asked:
    - To stay at home for 14 days so they don’t infect other people.
    - To monitor their health for 14 days in case they develop symptoms.
- Follow the advice of health authorities.

Coping with stress during the COVID-19 outbreak

COVID-19 can be stressful, the effects can be both physical and emotional.

Things you can do to reduce stress:

- Take breaks from listening to, watching or reading about COVID-19 frequently, including social media.
- Focus on the facts of COVID-19 and understand the risk to yourself and those you care about.
- Separate facts from rumours. Gather information from reliable sources.
- If stress continues to hamper your daily activities, talk to a doctor, or someone you can trust.

Keep yourself in the best possible health.
Sleep well, eat healthy and be physically active.

More information on COVID-19

Keep up to date with news and information from the International SOS dedicated website:

https://pandemic.internationalsos.com/2019-ncov

Any questions

Disclaimer: This presentation has been developed for educational purposes only. It is not a substitute for professional medical advice. Should you have questions or concerns about any topic described here, please consult your medical professional.

Attachment C: Signs and Symptoms Flyer

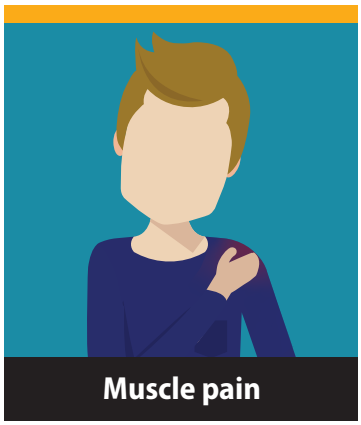
Symptoms of Coronavirus (COVID-19)

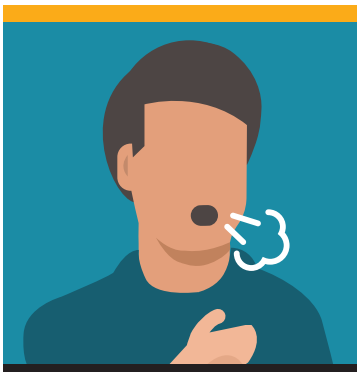
Know the symptoms of COVID-19, which can include the following:

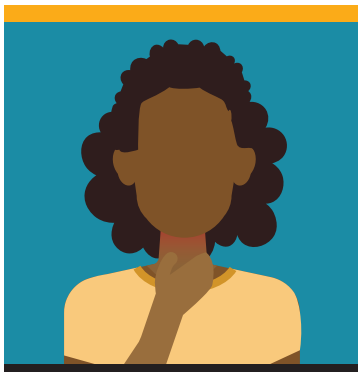

Cough


Fever


Chills


Muscle pain


Shortness of breath or difficulty breathing*


Sore throat


New loss of taste or smell

Symptoms can range from mild to severe illness, and appear 2-14 days after you are exposed to the virus that causes COVID-19.

***Seek medical care immediately if someone has emergency warning signs of COVID-19.**

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

This list is not all possible symptoms. Please call your medical provider for any other symptoms that are severe or concerning to you.

cdc.gov/coronavirus

317142-A May 20, 2020 10:44 AM

Attachment D: COVID-19 AHA

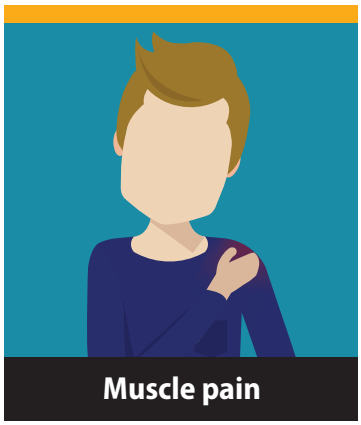
Symptoms of Coronavirus (COVID-19)

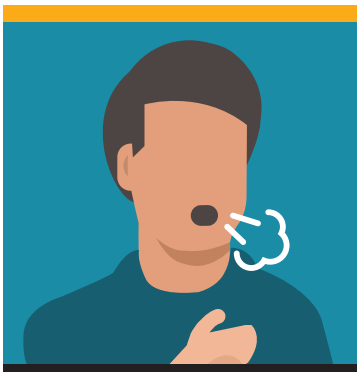
Know the symptoms of COVID-19, which can include the following:

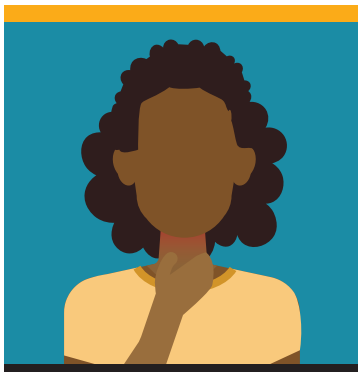

Cough


Fever


Chills


Muscle pain


Shortness of breath or difficulty breathing*


Sore throat


New loss of taste or smell

Symptoms can range from mild to severe illness, and appear 2-14 days after you are exposed to the virus that causes COVID-19.

***Seek medical care immediately if someone has emergency warning signs of COVID-19.**

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

This list is not all possible symptoms. Please call your medical provider for any other symptoms that are severe or concerning to you.

cdc.gov/coronavirus

317142-A May 20, 2020 10:44 AM

ACTIVITY HAZARDS ANALYSIS

Overall Risk Assessment Code (RAC)
(Use highest code): L

Date: 18 September 2020 Project: _____

Activity: COVID-19 Precautions for Field and Office Staff

Activity Location: _____

Prepared By: Leland Meadows, CIH, CSP, CHMM

Risk Assessment Code Matrix

E = Extremely High Risk
H = High Risk
M = Moderate Risk
L = Low Risk

Severity	Probability				
	Frequent	Likely	Occasional	Seldom	Unlikely
Catastrophic	E	E	H	H	M
Critical	E	H	H	M	L
Marginal	H	M	M	L	L
Negligible	M	L	L	L	L

Add Identified Hazards

	JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
X	Perform routine activities during the course of daily operations, while protecting employees from the effects of COVID-19. Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus that was first identified during an investigation into an outbreak in Wuhan, China.	A mild to severe respiratory illness that is caused by a coronavirus is transmitted chiefly by contact with infectious material (such as respiratory droplets), and is characterized especially by fever, cough, and shortness of breath and may progress to pneumonia and respiratory failure.	- Stay at home when sick - Self quarantine after contact - Take your temperature daily - Use of N95 Mask and Cloth Face Coverings - Social Distancing - Practice good hygiene - Disinfect frequently touched surfaces - Going Paperless - Proper decontamination of vehicles - Completion of Risk assessment - Disinfect vehicles and rental equipment - Considerations for lodging - Completion of health screening forms - Reporting COVID-19 exposures	L

ACTIVITY HAZARDS ANALYSIS

	JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
X		Contact and spread of infectious viruses through human and animal interaction.	Stay Home if you are Sick The word sick in this context means feeling or exhibiting unwell conditions or symptoms of any kind and could consist of a variety of issues including: •Fever or chills •Cough •Shortness of breath or difficulty breathing •Fatigue •Muscle or body aches •Headache •New loss of taste or smell •Sore throat •Congestion or runny nose •Nausea or vomiting •Diarrhea	L
X		Contact and spread of infectious viruses through human and animal interaction.	Self quarantine If you come into close contact with indivduals at work or home that have tested positive for COVID-19, you must self quarantine for 14 days; if you do not exhibit symptoms after 14 days, you may come back to work.	L
X		Contact and spread of infectious viruses through human and animal interaction.	Take your temperature daily Prior to coming to work you must take your temperature. Do not report to any office or field location if your temperature is above 100 degrees Fahrenheit. KEMRON will supply no-touch thermometers at office and field locations to test employees that do not have access to thermometers and to vendors that pass the entry check point.	L
X		Contact and spread of infectious viruses through human and animal interaction.	Use of N95, or similar and cloth face coverings: Employees must don face coverings in all common areas of buildings and when social distancing is unavoidable while working in the field. Employees may take their face covering off while working in their office alone or designated personal space. Face coverings or mask should: - fit snugly but comfortably against the side of the face - be secured with ties or ear loops - include multiple layers of fabric - allow for breathing without restriction - be able to be laundered and machine dried without damage or change to shape	L
X		Contact and spread of infectious viruses through human and animal interaction.	Social Distancing The Centers for Disease Control (CDC) definition of social distancing means remaining out of congregate settings, not shaking hands, avoiding mass gatherings and maintaining distance (approximate 6 feet or 2 meters) from others when possible. Field situations where social distancing should be practiced are tailgate and safety briefing meetings, work in field trailers or breaks.	L

ACTIVITY HAZARDS ANALYSIS

	JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
X		Contact and spread of infectious viruses through human and animal interaction.	Practice good hygiene - Get a flu vaccine. - Wash hands often with soap & water for a minimum of 20 seconds. - If soap and water is not available use hand sanitizer with at least 60% ethanol or 70% isopropanol alcohol. - Avoid touching your eyes, nose and mouth. - Cover your nose and mouth with tissue or elbow when sneezing or coughing. - Do not share Personal Protective Equipment (PPE). - Maintain and clean PPE in accordance with manufacturer's specifications.	L
X		Contact and spread of infectious viruses through human and animal interaction.	Disinfect Frequently Touched Surfaces Throughout the day you will likely touch surfaces that may have been touched by others. Clean and disinfect frequently touched surfaces and work areas both before start and after completion of work. Refer back to manufacture's guidance or EPA website to check chemicals for contact time. Disinfections should be listed on EPA's N-List.	L
X		Contact and spread of infectious viruses through human and animal interaction.	Going Paperless Utilize digital resources and technology to reduce the need for employees to transmit information manually from paper.	L
X		Contact and spread of infectious viruses through human and animal interaction.	Proper Decontamination of Vehicles When using shared vehicles (fleet, rental, ride sharing) follow the cleaning guidance above for frequently touched surfaces. Check with your rental agency before vehicle pick-up to understand their cleaning procedures and supplement with your own as necessary. Note: if using wipes, make sure wipe is compatible with the surface being cleaned.	L
X		Contact and spread of infectious viruses through human and animal interaction.	Disinfection of equipment Clean the exterior of rental equipment upon arrival at the job site using a cleaning product that will not affect equipment serviceability.	L
X		Contact and spread of infectious viruses through human and animal interaction.	Lodging Considerations • Most hotel chains and rental properties have implemented additional cleaning and disinfection procedures. Check with the property before check-in to understand their cleaning procedures. If there is still a concern, bring a surface cleaner/disinfectant and wipe down frequently touched surfaces as well as porous and non-porous surfaces. Be sure to disinfect and then hang the "Do Not Disturb" tag on your door. Pay close attention to tables, chairs, doorknobs, counter tops, nightstands, handles, phones, remote controls, toilets and faucets.	L

ACTIVITY HAZARDS ANALYSIS

	JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	RAC
X		Personnel considerations if you become sick	Completion of Risk Assessment • If you are sick, stay home. • Check your temperature before your leaving your residence for work. If your temperature is 100oF or 37.8oC or higher stay home and report your temperature to your supervisor, SSHO or Site Manager. • Complete a CDC Risk Assessment and implement what is appropriate, outside of formal direction from federal, state or local directives based on the documented health risks. The CDC risk assessment can be found here: https://www.cdc.gov/coronavirus/2019-ncov/php/rick-assessment.html. Completion of Health Screening Forms If required you may need to complete a Health Screening Form that may contain questions pertaining to travel, your contact with people diagnosed with COVID-19, and whether you have experienced flu-like symptoms in the last 14 days. Reporting COVID-19 Exposures If you learn that you have been in close contact with a worker, client or member of the public who is COVID-19 positive: • Stop Work. • Notify your supervisor, Site Safety & Health Officer and Site Manager. • Self-isolate and contact your personal physician for additional direction. • Notify Danie Penenburgh, the Human Resources Manager.	

Add Items

	EQUIPMENT	TRAINING	INSPECTION
X	N95 Mask and Cloth Face Coverings	Worker to have knowledge of proper use. See guidance provided by CDC.	Inspect all mask and coverings prior to use.
X	Washing stations, antibacterial hand soap and hand sanitizers	Worker to have knowledge of proper use and duration of 20 seconds during washing activities. See guidance provided by CDC.	Inspect stations for operation and cleanliness.
X	Lysol, Clorox, etc.	Worker to have knowledge of proper use. See guidance provided by CDC and chemical safety data sheets (SDS).	Ensure high touch surfaces, vehicles, and equipment are disinfected frequently throughout the day.

Involved Personnel:

ACTIVITY HAZARDS ANALYSIS

Acceptance Authority (digital signature): Leland J. Meadows Digitally signed by Leland J. Meadows Date: 2020.09.18 13:34:32 -04'00'

Appendix D

Structural Assessment

STRUCTURAL INTEGRITY ASSESSMENT

for

Kemron Environmental Services
1359-A Ellsworth Industrial Boulevard
Atlanta, Georgia 30318

- Location -

Deferiet Paper Mill Site
400 Anderson Avenue
Deferiet, New York

March 2021

Prepared By:

NEU-VELLE LLC

1667 Lake Avenue
Building 59, Suite 101
Rochester, New York 14615
585-313-9683

Table of Contents

EXECUTIVE SUMMARY

This report has been prepared to summarize structural integrity evaluation for the Deferiet Paper Mill property located at 400 Anderson Avenue in Deferiet, New York (subject property or Site). The work was completed by NEU-VELLE LLC (NEU-VELLE) on behalf of Kemron Environmental Services

The inspection was conducted on March 23, 2021 to document any noticeable changes to the structures following the October 14, 2020. NEU-VELLE conducted the inspection of the Site buildings to provide judgement on the structural integrity of buildings located at the Site to allow for safe access and future asbestos abatement activities.

Based on review of the site, it is NEU-VELL's professional judgement that there has not been any significant change to the structures since the October 14, 2020 site inspection. As documented in the previous report, the majority (areas of concern are noted in the report) of the areas within the Site (with the exception of the Wet/Beater Room wall adjacent to the canal and a portion of the second floor in the machine room) have adequate structural integrity to allow for the safe removal of asbestos containing material without the need for additional structural supports. However, as stated in the previous report, the site is in major disrepair (i.e., debris, openings in floors, partial demolition, cracked concrete, loose bricks, hanging pipes, etc.) and all areas of the buildings and site could not be adequately accessed. Therefore, caution should be taken when working in and around these areas to avoid injury.

Section 1

NEU-VELLE, LLC.

Introduction

1.0 Introduction

1.1 General

This report has been prepared by NEU-VELLE, LLC. (NEU-VELLE) to document the findings of a structural integrity assessment conducted on March 23, 2021 for the Deferiet Paper Mill located at 400 Anderson Avenue in Deferiet, New York. The assessment was conducted to evaluate if there were any notable changes to the site structures (i.e., buildings) following the October 14, 2020 inspection, and to provide judgement on the building's structural integrity for future access to conduct asbestos abatement activities, as necessary.

1.2 Project Objectives

The purpose and objective of the assessment includes the following:

- The professional judgement relating to the structural integrity of the following buildings: Turbine Room, Boiler Room, Sulfite Room, Machine Room (and connected structures), Wet/Beater Room, Easement (and elevated Electrical Room), shared walls of the Brookfield building, and Company Garage;

- Determinations for each building of whether safe removal of bulk loose asbestos can occur;

- Determinations for each building of whether safe abatement of asbestos pipe insulation can occur;

- Determinations for each building of whether safe encapsulation of asbestos insulation can occur;

- Determination for each building of whether stabilization activities could be performed to allow abatement and what those stabilization activities would entail;

- Evaluation of all common walls with the Brookfield building to determine what, if any, stabilization activities would be required to ensure protection of the Brookfield building;

- Estimated distances to stop work as to not impact the Brookfield facility; and
- Evaluation of all walls along the Power Canal to determine what, if any, stabilization activities of structures (including bridges, piping, buildings, etc.) would be required to ensure protection of the Power Canal.

1.3 Report Organization

This report presents the findings from the site inspection and structural evaluation activities. Section 2 provides a general overview of the investigation activities and areas inspected. Section 3 provides information on each area as well as the condition and evaluation of structural integrity. Section 4 presents our conclusions and recommendations regarding the interpretation and findings as a result of the inspection and evaluation.

Section 2

NEU-VELLE, LLC.

Project Overview

2.0 Project Overview

2.1 General

This section presents the approach and methodology used in performing the structural integrity assessment of the on-site buildings. In order to meet the objectives of the project, a walk-through and inspection of the buildings was conducted at the site on March 23, 2021 that included the following:

- Review of the Site;
- Review of current and past Site operations;
- Review of future Site activities; and
- Walk-though of accessible areas of the Site.

The following subsections describe the details with respect to the above noted activities.

2.2 Site History

Prior to entering the site, Kemron and the on-site United States Environmental Protection (USEPA) representatives provided a brief overview of the site and proposed Site activities. According to Site Representatives, the Deferiet Paper Mill site is an inactive paper mill that has been in operation since approximately 1899. The site has numerous buildings and an operating hydroelectric plant which is currently being operated by Brookfield Renewable Power, LLC. Following closure of the paper mill in 2004, various entities have owned the property and in 2012 the site was purchased by Deferiet Development, LLC for the recovery and salvage of stainless steel, brass and other valuable metals. In addition, Deferiet Development initiated the dismantlement of the site buildings in an effort to recover pipes for salvage value. These activities have left the Site in disarray exposing asbestos containing materials to the environment. From 2016 to October 2018, the USEPA implemented activities at the site to apply encapsulants on asbestos-containing pipe to protect Brookfield Renewable Energy Group employees as well as the public from asbestos exposure. In August 2020, an Action Memorandum was signed to allow for the mitigation of asbestos-containing materials throughout on-site buildings that were partially demolished exposing the material to the environment. A map of the site is presented in Appendix A.

Section 3

NEU-VELLE, LLC.

Structural Integrity Assessemnt

3.0 Structural Integrity Inspection

3.1 General

Accompanied by Kemron and USEPA representatives, NEU-VELLE conducted a walk-thru of accessible buildings/areas of the Site. The following areas were inspected. A brief description of the area and judgment of the structural integrity is presented below. Representative photographs of the areas inspected are presented in Appendix B.

- Company Garage
- Easement
- Turbine Room
- Boiler Room
- Machine Room
- Equipment Room
- Wet/Beater Room
- Shared Walls with the BrookField Building

3.2 Company Garage

The Company Garage is a single-story concrete block/brick and steel support structure of approximately 10,000 square foot in size. Based on inspection of the building, there was no significant change from the previous inspection and the structure is in generally good condition with no obvious structural integrity issues observed. Therefore, it is NEU-VELLE's judgement that safe removal of bulk or loose asbestos and/or encapsulation could be accomplished in this area. However, there is an interior masonry block room constructed within the building which shows signs of failing (shifting joints and blocks). Any work within or near this interior room should not be conducted and care should be taken if working in the area.

3.3 Easement

As indicated previously, the site currently has an active hydroelectric plant which is operated by Brookfield Renewable Power, LLC. An access route to the Brookfield plant is provided by an easement area that runs approximately north to south through the plant site. Based on inspection of the easement area, there was no significant change from the previous inspection and the structures are in generally good condition with no obvious exterior structural integrity issues observed. Therefore, it is NEU-VELLE's judgement that safe removal of bulk or loose asbestos and/or encapsulation could be accomplished in this area. However, care should be taken in areas of loose brick on various areas of the structures during work activities.

3.4 Turbine Room

The Turbine Room is a multi-story brick and steel support structure of approximately 6,000 square foot in size. Based on inspection of the building, there was no significant change from the previous inspection, and the structure is in generally good condition with no obvious structural integrity issues observed other that there has been brick removed on the second floor of the structure to apparently gain access to the interior of the structure for equipment removal. It is NEU-VELLE's judgement that safe removal of bulk or loose asbestos and/or encapsulation could be accomplished in this building as long as care is taken in areas where there is loose brick/block, overhanging equipment (i.e., piping, etc.), and floor openings.

3.5 Boiler Room

The Boiler Room is a multi-story brick and steel support structure of approximately 32,000 square foot in size. Based on inspection of the building, there was no significant change from the previous inspection and the structure is in generally good condition with no obvious structural integrity issues observed other than areas of loose brick throughout the structure. Therefore, it is NEU-VELLE's judgement that safe removal of bulk or loose asbestos and/or encapsulation could be accomplished in this building as long as care is taken in areas where there is loose brick/block, overhanging equipment (i.e., piping, etc.) floor openings.

3.6 Machine Room

The Machine Room is a mainly one-story brick and steel support structure of approximately 25,000 square foot in size. Based on inspection of the building, there was no significant change from the previous inspection and the structure is in generally good condition with no obvious structural integrity issues observed other than areas of loose brick/block throughout the structure. Therefore, it is NEU-VELLE's judgement that safe removal of bulk or loose asbestos and/or encapsulation could be accomplished in this building as long as care is taken in areas where there is loose brick/block or overhanging equipment (i.e., piping, etc.).

3.7 Equipment Room

The Equipment Room is a multi-story brick and steel support structure of approximately 25,000 square foot in size. Based on inspection of the building, there was no significant change from the previous inspection and the structure is in generally good condition with no obvious structural integrity issues observed other than the area has undergone demolition activities and areas of the building are collapsed. In addition, there are portions of the second floor that have deteriorated and should be supported if working in the vicinity of these areas. Therefore, it is NEU-VELLE's judgement that safe removal of bulk or loose asbestos and/or encapsulation could be accomplished in this building as long as care is taken in areas where there is loose brick/block, collapsed roof and/or floor structures, or overhanging equipment (i.e., piping, etc.).

3.8 Wet/Beater Room

The Wet/Beater Room is a one-story brick and steel support structure of approximately 30,000 square foot in size. It is located adjacent to the Brookfield Renewable Power which shares a common wall with this area/room. Based on inspection of the building, there was no significant change from the previous inspection and the majority of the structure is in generally good condition with no obvious structural integrity issues observed. However, the wall adjacent to the Canal shows significant signs of foundation deterioration in the area just adjacent to the power plant. Based on previous discussions from Brookfield Renewable Power representatives, significant settlement and deformation of the foundation has been observed (underwater visual inspection, etc.). Therefore, it is NEU-VELLE's judgement that safe removal of bulk or loose asbestos and/or encapsulation should not be conducted within 50 feet of this wall. In addition, based on inspection of the foundation in this area, NEU-VELLE does not believe that temporary shoring and/or supports should be used to protect the structure from collapse. It is recommended that a thorough underwater inspection of the foundation be conducted to design a remedy for this area, or it be properly raised. However, other areas of the building can be safely entered as long as care is taken

in areas where there is loose brick/block, collapsed roof and/or floor structures, or overhanging equipment (i.e., piping, etc.).

3.9 Brookfield Building/Shared Walls

The Brookfield Renewable Power Plant building is a multi-story brick and steel support structure of approximately 15,000 square foot in size. It is located adjacent to the Wet/Beater Room. Based on inspection of the building (inspection was only conducted from the Wet/Beater Room), there was no significant change from the previous inspection and the structure is in generally good condition with no obvious structural integrity issues observed. In addition, the common wall between the plant and the Wet/Beater appears to be in generally good condition with no apparent structural issues. However, as indicated above, the wall adjacent to the Canal shows significant signs of foundation deterioration in the area just adjacent to the power plant. In the event that this walls foundation becomes increasingly compromised, failure of the Wet/Beater Room wall could occur and compromise the structural integrity of the Brookfield Renewable Power Plant. Therefore, it is recommended that a thorough underwater inspection of the foundation be conducted to design a remedy for this area, or it be properly raised.

Section 4

NEU-VELLE, LLC.

Conclusions and Recommendations

4.0 Summary

4.1 General

This section summarizes the interpretation of the field data and associated findings obtained during the site inspection.

4.2 Conclusions and Recommendations

Based on review of the site, it is NEU-VELL's professional judgement that the majority (areas of concern are noted in the report) of the areas within the Site have adequate structural integrity to allow for the safe removal of asbestos containing material without the need for additional structural supports. As indicated, the site is in major disrepair (i.e., debris, openings in floors, partial demolition, cracked concrete, loose bricks, hanging pipes, etc.) and all areas of the buildings and site could not be adequately accessed. Therefore, caution should be taken when working in and around the site.

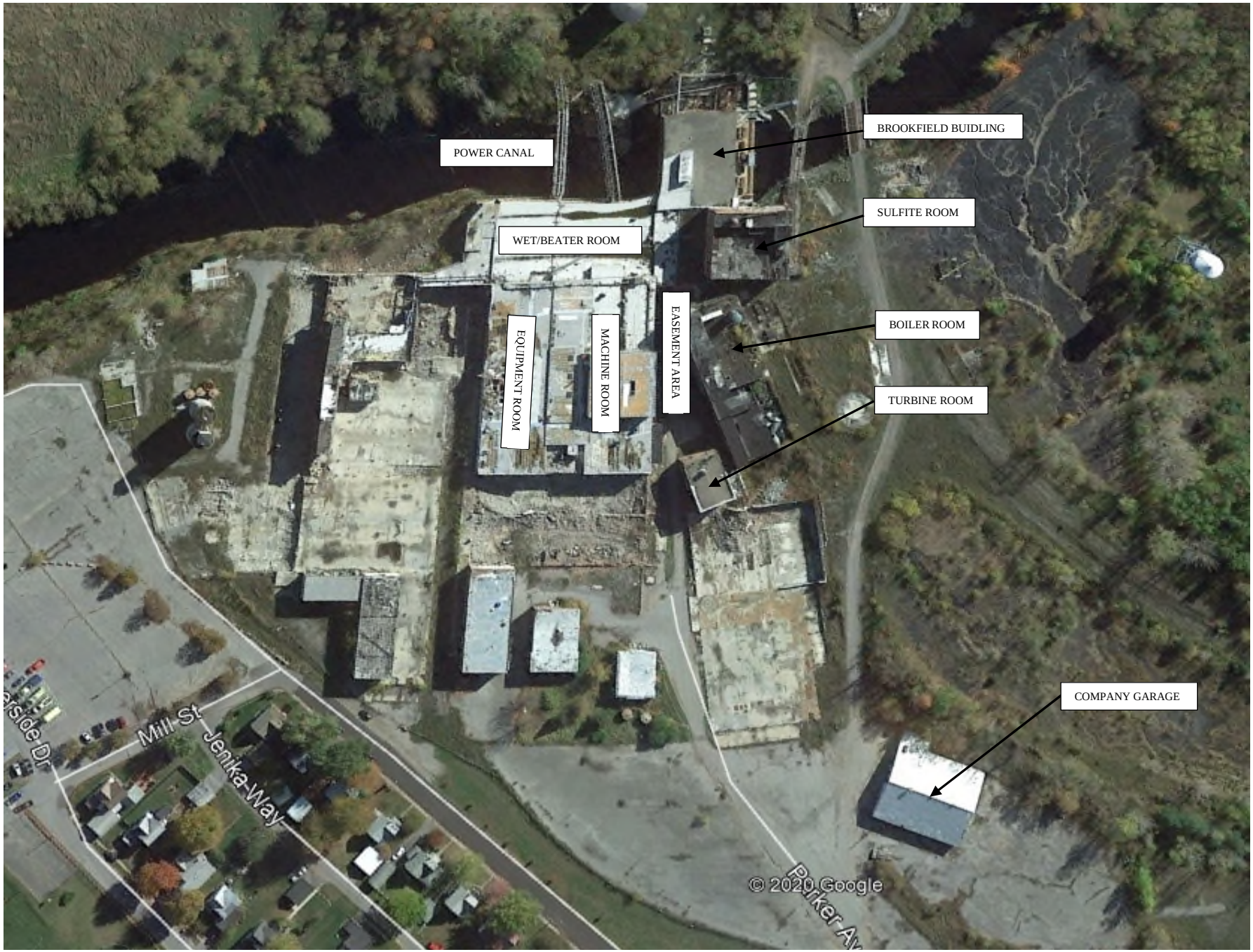
However, it is NEU-VELLE's judgement that the Wet/Beater Room wall adjacent to the Brookfield Power Plant is not safe and work should not be conducted within 50 feet of this wall. In addition, based on inspection of the foundation in this area, NEU-VELLE does not believe that temporary shoring and/or supports should be used to protect the structure from eventual collapse. It is recommended that a thorough underwater inspection of the foundation be conducted to design a permanent remedy for this area, or it be properly raised.

Appendix A

NEU-VELLE, LLC.

Site Map

SITE MAP


POWER CANAL
BROOKFIELD BUIDLING
SULFITE ROOM
WET/BEATER ROOM
EQUIPMENT ROOM
MACHINE ROOM
EASEMENT AREA
BOILER ROOM
TURBINE ROOM
COMPANY GARAGE
Mill St
Jenika Way
© 2020 Google

Appendix B

NEU-VELLE, LLC.

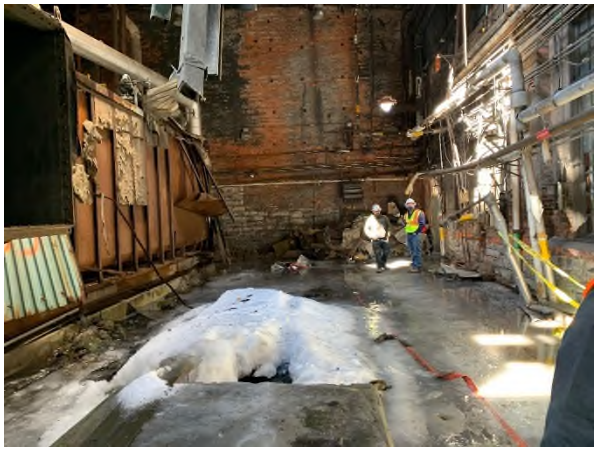
Photographs

Company Garage

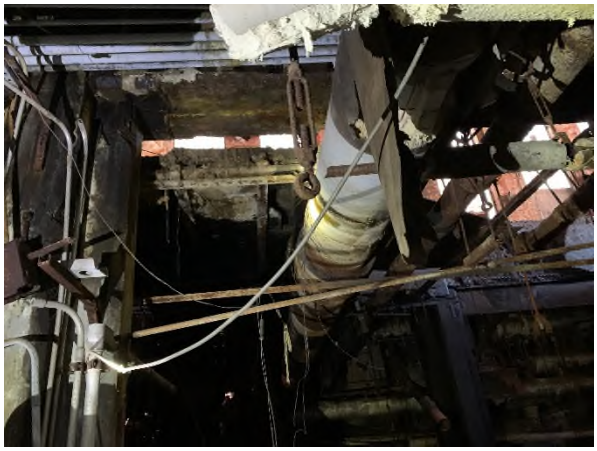
Easement

Turbine Room

Boiler Room

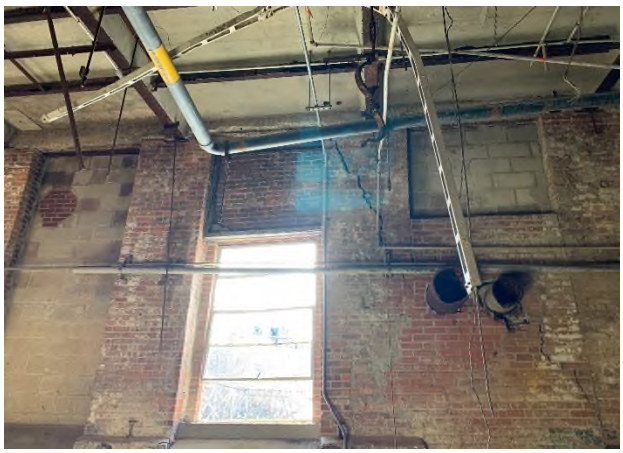


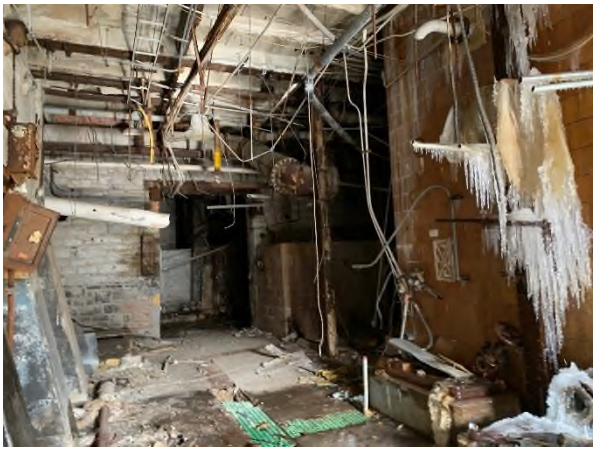
Machine/Equipment Rooms



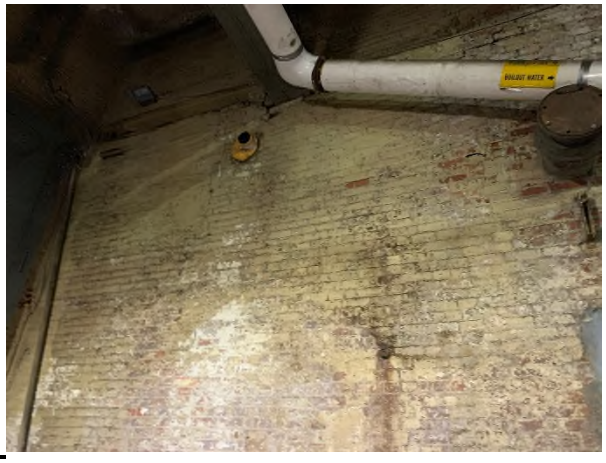


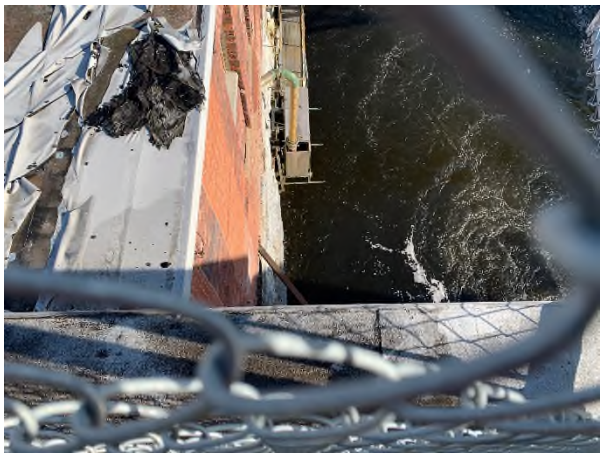

Wet/Beater Room





Brookfield Building & Shared Walls
(Photos from October 14, 2020)





Appendix C

NEU-VELLE, LLC.

Engineer Certification

STRUCTURAL INGEGRITY ASSESSENT

Deferiet Paper Mill
400 Anderson Avenue
Deferiet, New York

ENGINEER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete.

Albert G. Lyons Jr., P.E.
NEU-VELLE LLC

3/26/21
Date